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SUPPLEMENTAL INVESTIGATION REPORT
CHICAGO RECYCLE CENTER
SAFETY-KLEEN CORP.
CHICAGO, ILLINOIS
ILD005450697

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1.0 INTRODUCTION

This report has been prepared on behalf of Safety-Kleen Corp. (Safety-Kleen) by Canonie Environmental Services Corp. (Canonie). This report presents the results of a supplemental investigation conducted at Safety-Kleen's Chicago Recycle Center located in Chicago, Illinois (U.S. Environmental Protection Agency I.D. Number ILD005450697). The supplemental investigation was completed as part of the approved Partial Closure Plan (PCP) to close four hazardous waste storage tanks at the Chicago Recycle Center. The PCP was approved with conditions by the Illinois Environmental Protection Agency (IEPA) as stated in their August 30, 1991 letter to Safety-Kleen. The supplemental investigation was conducted under the guidance of the conditions stated in the August 30 letter.

The Safety-Kleen Facility, located at 1445 42nd Street, is a solvent recovery facility that accepts solvent waste from Safety-Kleen toll customers and other industrial and commercial facilities. The center processes this waste material to recover clean material for recycle or sale. The Chicago Recycle Center is located in a primarily industrialized area. The western perimeter of the site is bounded by the Ashland Cold Storage warehouse. Vacant properties lie to the north and east of the site. The southern property boundary is formed by 43rd street. Figure 1 shows the site location.

In April 1991, Safety-Kleen cleaned and removed the four aboveground storage tanks at the Chicago Recycle Center in accordance with the approved PCP. These four tanks were located in Tank Farm No. 3 (Figure 1).

Two sampling events have been conducted at Tank Farm No. 3 prior to this supplemental investigation. In February 1991, prior to removal of the tanks (pre-removal), Canonie collected shallow soil samples from within the containment dike. This investigation was designed to evaluate the soil conditions beneath the closure units. The second sampling event occurred in May 1991 after the tanks were removed (post-removal). RMT, Inc. (RMT) of Madison, Wisconsin conducted this sampling event, which included a soil gas survey and installation of several well points in and around the tank farm although at much lower levels.

Results of these previous investigations concluded that concentrations of trichloroethene (TCE), toluene, tetrachloroethene (PCE), and other volatile and semi-volatile organic compounds (VOCs and SVOCs) are present in the soils and ground water within and around the tank farm. The RMT investigation concluded that concentrations of these chemicals are also present outside the tank farm.

The purpose of this supplemental investigation was two-fold:

1. To determine the horizontal and vertical extent of the impacts discovered during the Tank Farm No. 3 closure activities;

2. To install four ground water monitoring wells to provide additional information about ground water quality around the closure units to determine the extent to which ground water degradation is related to the four closure units, and to evaluate the pertinent hydrogeologic characteristics of the site.

This report summarizes data obtained during this supplemental investigation. It includes data from the soil sampling conducted during the tank closure and data obtained by RMT during the soil gas survey conducted at the site.

Section 2 describes the field work conducted to date. Analytical results are discussed in Section 3.0. The report summary and conclusions are presented in Section 4.0.

2.0 FIELD OPERATIONS

Field activities related to the closure of Tanks T-190 through T-192 have occurred in three phases. Phase I occurred prior to the tank removals and was comprised of shallow soil sampling conducted within the concrete containment dikes of the four tanks scheduled for closure. This phase was conducted by Canonie. Phase II consisted of a soil gas survey and ground water sampling conducted by RMT within and outside Tank Farm No. 3 during the tank removal activities. The Phase III supplemental investigation described in this report has been completed and consisted of soil borings and monitoring well installations outside the tank farm area. The following three sections summarize the field activities. Additional details are available in the Closure Progress Report (Canonie, November 1991).

2.1 Pre-Removal Shallow Soil Sampling

Soil samples were taken in the vicinity of the four tanks (T190, 191, 192, and 193) on February 11, 1991. These samples were obtained in accordance with the approved closure plan, however, due to the presence of concrete slabs directly beneath each tank, sample locations were moved slightly from beneath the tanks to positions between the dike walls and the slabs.

A total of 15 soil samples were obtained from Tank Farm No. 3. Figure 2 shows the sample locations. At each location a shallow soil sample was obtained from the 0-to-6 inch interval. A deeper sample was obtained from an approximate depth of two feet below ground surface. Actual sample depths are noted in Table 1.

Each tank was located on concrete supports that rest on a concrete slab beneath the tank. Surrounding each tank was a concrete dike approximately five feet high. The dike and slab are not continuous, which results in a narrow strip of soil between 1 and 1-1/2 feet wide at the surface. Below the surface, the soil strip is considerably narrower due

to the concrete footings of the dike walls. In some instances, the footing prevented sampling at the proposed two-foot depth.

The soils sampled were generally sandy and brown to black with occasional layers of light brown clay. All sample locations had significant amounts of rubble, stone, and coarse gravel that interfered with the sampling tools. Water was encountered at only one sample location. Sample S8-Deep filled with water as the hole was augured to 1 foot. Other deep sample locations were damp.

At each location the following sampling procedures were used. To obtain the shallow soil sample, the top layer (less than 1/2 inch) of soil was scraped away to eliminate the influence of any airborne impacts. Once the surface layer was removed, a pre-cleaned, stainless steel spoon was used to fill each sampling jar. Pre-washed, certified sample jars provided by Eagle Pitcher Environmental Services were obtained via GTEL laboratories. Each sample jar was completely filled and immediately capped. A total of three jars were filled for each sample.

Between samples, all sampling equipment was decontaminated using a three part wash of Alconoxu solution; clean, potable water rinse; and a final, deionized (D/I) water rinse. New outer gloves were used for each tank location.

After collecting the shallow sample, a hand bucket auger was used to advance a hole to the two-foot depth. If possible, the two-foot sample was located directly below the shallow sample. However, rubble and other debris often prevented the auger from reaching 2 feet. In those instances the deep (two-foot) sample was displaced laterally from the shallow sample location. Once the auger reached two feet, the last bucket of soil was used for the "deep" sample. The soil was transferred directly from the auger bucket to the sample containers using a decontaminated, stainless steel spoon.

The above procedure was used to obtain all samples from the Tank Farm No. 3 area. Two locations at each tank were sampled with a shallow and deep sample obtained from each location. The exception was Tank No. 190 (northernmost tank) where interference from the tank slab and dike wall footing precluded obtaining a deep sample at location S7.

After collection, all sample jars were individually bagged in ziplock bags and placed in a cooler for shipment. The sample cooler was cooled using "blue ice" to maintain the sample temperatures during shipment. Overnight courier service was used to ship the samples to GTEL Laboratories, located in Wichita, Kansas.

All samples were submitted for U.S. Environmental Protection Agency (EPA) SW-846 Method 8240 for volatiles analysis and EPA SW-846 Method 8270 for semivolatiles analysis. A library search Method 8270 was used to identify the presence of the following compounds: pyridine, B-picoline, N,N-dimethylacetamide, and 1-methyl-2-pyrrolidinone. Table 1 contains the complete target compound list.

2.2 Post-Removal Soil Gas Survey and Temporary Well Sampling

RMT conducted a soil gas survey and sampled four temporary well points (piezometers) at the facility from May 7 to May 9, 1991. Fifteen sample locations were located within and around the containment walls of Tank Farm No. 3. Results of the soil gas survey and ground water sampling indicated that organic constituents had been released to the soil and ground water within the tank farm concrete containment cells. RMT also detected soil and ground water impacts outside the tank farm area.

RMT noted that during May 1991, the ground water elevation inside the containment dike was 0.5 to 1.0 foot below grade and between 2.5 and 3.5 feet below grade outside the containment area. In the letter report dated May 14, 1991, RMT stated that the difference in ground water elevation is likely due to the subsurface concrete dike restricting lateral

ground water flow from the tank farm by forcing water to flow through the underlying clay layer.

2.3 Post-Removal Supplemental Investigation

Soil boring and sampling, and monitoring well installation and sampling were conducted in October 1991 to further identify the extent of impacted soil and ground water discovered during the previous investigations. Field activities related to this supplemental investigation were as follows.

2.3.1 Soil Borings

A total of 10 soil borings were completed around the Tank Farm No. 3 area following the tank removal activities. The Canonie crew mobilized to begin the soil boring program on October 21, 1991. This soil boring program was conducted in accordance with the revised closure plan approval letter dated August 30, 1991.

Three of the 10 borings were converted to shallow ground water monitoring wells and the remaining borings were grouted back to the surface using bentonite chips and a concrete surface seal. A fourth monitoring well was proposed in the closure plan, however, this well could not be developed in its proposed location due to the presence of a roadway buried beneath the ground surface. Attempts to develop this well elsewhere in the general vicinity of the proposed location were unsuccessful. In addition, two 5-foot-deep sumps were installed inside the tank farm for future remediation activities. The sumps were installed in former Tank Locations T-190 and T-192. These sumps were constructed of four-inch PVC with #10-slot well screens.

Each boring was continuously sampled using a 24-inch-long, 2-1/2-inch-OD split spoon and logged using the Unified Soil Classification System (USCS). Boring logs are contained in Appendix A. The split spoon was lined with 6-inch brass tubes in

accordance with the approval letter. Each sample was screened using a Foxboro Century Organic Vapor Analyzer (OVA) calibrated to a nine percent methane standard per the manufacturer's instructions. Screening took place immediately upon opening of the split spoon so that vapors could not escape.

One or two (depending upon the percent recovery) of the brass tubes from each spoon were capped and stored in a cooler pending completion of the boring. OVA readings were noted on the boring logs so that, at a minimum, the soil samples with the highest and lowest OVA readings at each boring could be submitted for analysis. OVA readings were taken to indicate the vertical extent of impacts as well.

Most borings were advanced to a depth of approximately 10 feet, the depth associated with the top of a clay layer that exists under the site in the vicinity of the tank farm. Boring B4 was advanced to a total depth of 20 feet in an attempt to define the thickness of the clay layer. All borings were advanced using 5-1/4-inch flight augers which were steam cleaned between each location. The split-spoon samplers were decontaminated between sample depths using an Alconoxu wash and hot water rinse, and were steam cleaned between boring locations. New, pre-cleaned brass tubes were used for each sample, eliminating the need to decontaminate brass tubes.

Figure 1 shows the boring locations. Initial locations were selected based upon a review of the IEPA's "Instructions for the Preparation of Closure Plans for Interim Status RCRA Hazardous Waste Facilities," impacted areas identified in the previous investigations ("hot spots"), and an anticipated regional ground water flow toward the north and east. Borings B1, B2, B3, B4, and B8 are upgradient of the tank farm based on this assumption. Boring B5, B6, MW-3, and MW-2 are all down- or off-gradient from the tank farm. Borings were numbered sequentially. Boring B7 was not installed, however, because of its proximity to MW-2 and MW-3.

The site is underlain by a highly variable fill layer that contains rubble and old concrete building footings. Borings B1, B8 and MW-3 were all relocated from their initial locations because subsurface debris could not be penetrated by the drill augers, jackhammer, or core drills. Figure 1 indicates the final locations of the borings.

2.3.2 Monitoring Well Installations

Three monitoring wells were installed at the site, surrounding Tank Farm No. 3 and Tank Farm No. 2. All wells were installed to the extent possible in accordance with the EPA's RCRA Groundwater Monitoring Technical Enforcement Guidance Document (September 1986). The locations were chosen based upon information from the previous investigations and the assumed ground water flow direction. Installation of a fourth well was attempted; however, it could not be advanced after trying five different locations due to subsurface barriers. This well was to be used for the collection of soil samples for sieve analysis. The fourth well will be relocated in the near future based on the results of this investigation and installed accordingly. A sieve analysis of the soil material in the saturated zone will be performed and provided to IEPA as soon as possible.

MW-1 is the designated background well and MW-2 and MW-3 are arranged downgradient of tank farm. RMT data indicated that some component of ground water flow may occur to the west (influenced by the storm sewer located on the Ashland property); therefore, MW-2 was displaced slightly westward of the tank farm so that it may intercept this flow component, if it occurs.

All wells were set so that their screens straddle the water table. However, the high water level in MW-2 precluded setting the screen high enough and still allowing an adequate thickness for the annular and surface seal. With the present water level, MW-2 acts as a piezometer.

Wells were constructed of 304 stainless-steel screens and riser. Screens and risers were approximately five feet in length. Wells were capped with locking caps and protected in flush-mounted covers.

Global Number 5 filter pack sand was placed around the screens to a depth of two feet above the screen. A two-foot-thick bentonite seal was placed above the filter pack. The seal was therefore placed above the water table. The bentonite chips were placed by hand and tamped into the hole to ensure that no bridging occurred in the seal. The seal was then hydrated by adding clean water to the chips. After allowing the seal to hydrate, the flush mount protector and surface seal of concrete were set in place. Well construction drawings are contained in Appendix B.

Following installation, the monitoring wells were developed using stainless steel bailers. A minimum of three well volumes were purged from each well and development continued until the development water was clean (relatively) and free of fines. Development waters were containerized for disposal at the Recycling Facility pending chemical analyses.

Wells were allowed to equilibrate for one week following development prior to sampling. The wells collect water from a silty clay zone and, therefore, recharge very slowly. Purging each well prior to sampling was accomplished by bailing the well dry then allowing it to recharge. Analytical samples were obtained once the well had recharged. Purging and sampling of the wells was accomplished using disposable high density polyethylene (HDPE) bailers. Bailers were supplied in sealed bags from the manufacturer and were discarded after each well thus eliminating the potential for cross contamination of the wells.

Water samples were submitted to Weston/Gulf Coast Laboratories for analysis of VOCs and SVOCs per U.S. Environmental Protection Agency Methods 8240 and 8270, respectively.

3.0 SOIL AND GROUND WATER RESULTS

The following sections discuss the soil stratigraphy encountered in the soil borings, the hydraulic gradient underlying the site, and laboratory test results from the soil and ground water analyses.

3.1 Stratigraphy

The site stratigraphy is complicated. The surface of the site is comprised of limestone fill and concrete areas surrounding the various tank farms and truck loading docks. The surficial two inches of limestone aggregate is underlain by fill of variable thickness and composition. In some areas, this fill consists of sand, gravel and crushed brick debris. At other locations, the fill contains old concrete building footings, dolomite flagstones and granite cobbles and showed no trace of the sand and gravel evident at other locations. The fill varied in thickness from less than a foot to as much as 2-1/2 feet. North of Tank Farm No. 2 there is evidence of two concrete slabs overlying granite cobbles or dolomite flagstones.

Beneath the fill lies a silt/clayey silt that varies in color from brownish grey to black. This silt contains a shallow water table which is often marked by a black silt seam within the silt/clayey silt. Organic odors were present in this zone. The zone is prominent at borings B1 and B2; however, it becomes less pronounced at the northern locations. The black staining associated with this zone is present in all borings.

Below the silt/clayey silt layer is a clay zone. Organic odors tend to diminish in this zone and the black staining was generally absent, as well. OVA readings were lower in this zone. The clay is a brown to light grey and occasionally showed yellow/brown mottling. The change from the overlying silt to the clay was gradual but was generally complete by 12 feet below grade. The clay is at least 10 feet thick based on data from boring B4, which was advanced into the clay. The clay was not penetrated by any of the other

borings. Other borings were stopped at the top of the clay due to decreasing OVA readings and the desire to maintain the integrity of the clay wherever possible and to avoid creating a potential conduit for downward migration of chemical compounds. Based on typical grain size and lithologic descriptions, the permeability of the clay should range from 4.5×10^{-7} to 4.5×10^{-10} cm/sec. Thus, the clay represents an impermeable barrier to downward movement of water.

3.2 Hydraulic Gradient

Water elevation data was collected from monitoring wells installed by RMT and those installed as a part of this supplemental investigation. Results of the elevation readings are summarized in Table 3. Water elevation data indicates strong, localized influences on the hydraulic gradient at the facility. Water collection sumps located around the recycling center and a sunken truck loading dock are seen to exert these local influences. The local gradient in the vicinity of the tank farm appears to be flowing to the east with a gradient of 0.036 ft/ft.

3.3 Analytical Results - Soil

Soil samples were analyzed for the parameters listed in EPA Methods 8240 and 8270. These methods include the Target Compounds List (TCL) mandated in the closure approval letter. These compounds are:

- Methylene chloride;
- Acetone;
- 1,1,1, Trichloroethane (1,1,1-TCA);
- Trichloroethene (TCE);
- Tetrachloroethene (PCE);
- Toluene;
- Trichlorotriflouroethane;

- o Tetrahydrofuran;
- o N-N-Dimethylacetamide;
- o B-Picoline;
- o Pyridine;
- o 1 Methyl-2-Pyrrolidinone.

The analytical laboratory ordered calibration standards for the non-standard compounds on the above list so that these compounds could be positively identified and quantified.

3.3.1 Pre-Removal Soil Sampling

Results of the pre-removal shallow soil sampling identified concentrations of VOCs and SVOCs within the concrete dike. Results of these sampling activities indicated concentrations of toluene; 1,1,1-TCA; TCE; and B-picoline (up to 44,000 mg/kg, 2,800 mg/kg, 2000 mg/kg, and 880 mg/kg respectively) as well as lesser amounts of other VOCs and SVOCs in the dike area soils. Detailed results of the pre-closure sampling investigation are included in Table 1.

3.3.2 Post-Removal Soil Gas Survey

Results of the soil gas survey and ground water sampling by RMT indicated that organic constituents are present in the soil and shallow ground water within the tank farm concrete containment cells. RMT also detected concentrations of toluene and TCE in soil and shallow ground water samples outside of the tank farm area although at much lower levels. Results of the RMT investigation are included in Appendix C. Soil gas analytical results from two sampling locations adjacent to Canonie's shallow soil sampling locations were consistent with compositional results from these shallow-sample locations. These results show a correlation between the two techniques, although there is not necessarily a linear quantitative relationship between results.

3.3.3 Supplemental Investigation

Results of this supplemental investigation revealed the presence of VOCs and SVOCs outside the tank farm area. Soil samples from Boring B-5, located east of Tank Farm No. 3, revealed the presence of toluene; 1,1,1-TCA; and TCE in concentrations of 520, 420, and 740 mg/kg, respectively, at depths to six feet. Pyridine, B-picoline, and N,N-dimethylacetamide were present in concentrations of 330, 1400, and 5200 mg/kg, respectively, at depths to six feet in soil samples from Boring B-5. Comparable levels of B-picoline and N,N-dimethylacetamide were present in Boring B-6, located to the northeast of Tank Farm No. 3. Additionally these compounds were detected in soil samples from the boring for Monitoring Well No. 2 (MW-2), located off the northwest corner of the tank farm. Soil samples from Borings B-1, B-3, MW-1 and MW-3 had concentrations of VOCs and SVOCs in the tens of mg/kg. Concentrations of VOCs and SVOCs from the TCL are lower in borings farther away from Tank Farm No. 3 (B-1, B-2, B-3, B-4, B-8 and MW-1).

Table 2 contains a summary of the analytical data for the supplemental investigation.

3.4 Analytical Results - Ground Water

Results of this supplemental investigation indicated the presence of VOCs and SVOCs in ground water outside the tank farm area. Water samples taken from MW-2, located off the northwest corner of Tank Farm No. 3, revealed the presence of toluene; B-picoline; and N,N-dimethylacetamide in concentrations of 300, 290, and 850 mg/l, respectively. MW-2 revealed concentrations of 1-methyl-2-pyrrolidinone and TCE in the tens of mg/l, as well. Water samples from MW-1 and MW-3 had concentrations of VOCs and SVOCs in mg/l levels.

Table 4 contains tabulated ground water data for the supplemental investigation.

4.0 CONCLUSIONS

Data collected to date at the Safety-Kleen Chicago Recycle Center in Chicago, Illinois indicate impacted soil both inside and outside Tank Farm No. 3. Soil impacts appear to decrease as a function of distance from the tank farm. The greatest impacts are seen within the concrete walls where the four tanks were formerly located and outside the walls in the northern end of the tank farm. Soil has been impacted by VOCs and SVOCs analyzed for from the TCL. Toluene; 1,1,1-TCA; B-picoline; and TCE are present in both inside the tank farm and immediately outside the tank farm to the east. N,N-Dimethylacetamide is present in the soil immediately outside the tank farm to the north and east, but not in the tank farm itself. Tank Farm No. 3 may be the source of toluene and 1,1,1-TCA. B-picoline and TCE may be present from a source outside the tank farm. The source of N,N-dimethylacetamide is inconclusive. Soil samples were not taken to the west of the tank farm, which is off the facility property.

Data collected in this supplemental investigation indicate impacted ground water in the vicinity of Tank Farm No. 3, with the greatest impacts local to the tank farm. Overall, impacts appear to decrease as a function of distance from the tank farm. Ground water has been impacted by VOCs and SVOCs analyzed for from the TCL. Toluene; B-picoline; and N,N-dimethylacetamide are present in the monitoring well closest to the former tank locations (MW-2). Ground water sampled inside the tank farm by RMT indicated the presence of toluene in significant concentrations. Localized water gradients make interpretation of the ground water flow pattern difficult. Based on current site data (which are affected by the large number of collection sumps, truck bays, and the highly disrupted soil fill conditions) the ground water flow appears to be eastward towards an apparent ground water low near MW-1. A fourth monitoring well is proposed to be located at the southwest corner of Tank Farm No. 2 to confirm these existing data. If the flow of ground water is eastward, this well should assist in further defining local ground water quality downgradient of the closure units.

The data collected to date indicates that the concrete footings resting on a relatively impermeable clay/silt soil have created "containment cells" around each of the four closure units. It is believed that the majority of releases from the closure units have been contained within these cells.

The relatively widespread distribution of toluene in the ground water samples at locations both off-gradient, in addition to downgradient, may be indicative of a regional problem. The industrial nature of the adjacent properties certainly indicates the potential for off-site sources of the toluene. A gasoline station is located at the corner of 44th Street and Ashland Avenue (approximately one-half mile southwest of the site), and an automobile painting shop is located due west of the site on Ashland Avenue. Either of these locations may be a source of toluene.

TABLE 1

RESULTS SUMMARY
SHALLOW SOIL SAMPLES - TANK FARM NO. 3 INTERIOR
SAFETY-KLEEN CORP.
CHICAGO RECYCLE CENTER

Compound	EPA Method	Detection Limit	Sample Results S1-SH	S1-DE	S2-SH	S2-DE	S3-SH	S3-DE	S4-SH	S4-DE	S5-SH	S5-DE	S6-SH	S6-DE	S7-SH	S8-SH	S8-DE	TRIP	FIELD
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/l
Volatiles																			
Methylene chloride	8240	0.005	<0.005	<0.005	<0.005	<0.005	<0.5	<0.25	<0.5	26	2.9	6.9	<0.005	<0.5	<0.005	<0.25	<5.0		<0.005
Acetone	8240	0.1	<0.1	<0.1	<0.1	<0.1	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<0.1	<10	<0.1	<5.0	<100.0		<0.1
1,1,1-Trichloroethane	8240	0.005	<0.005	0.013	<5.0	0.087	24	66	21	2,000	13	47	0.45	21	0.014	10	38		0.005
Trichloroethene	8240	0.005	0.036	0.92	0.0073	1.0	40	86	55	2,800	83	300	1.3	50	0.047	97	590		0.005
Tetrachloroethene (a)	8240	0.005	<0.005	<0.005	<0.005	0.27	55	50	25	42	11	16	0.29	12	0.02	28	43		<0.005
Toluene	8240	0.005	<0.005	0.012	<0.005	0.032	2.5	1.9	8.8	44,000	10,000	27,000	<0.005	4	0.027	12,000	33,000		<0.005
Freon 113 (b)(c)	8240	0.005	<0.005	<0.005	<0.005	<0.005	1.9	2.3	3.5	<5.0	<0.25	1.9	0.055	5.9	0.051	3.4	<5		ND
Tetrahydrofuran (c)	8240	(c)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
Detection Limit Multiplier			1	1	1	1	100	50	100	100	50	50	1	100	1	50	1000		
Semivolatiles																			
N,N Dimethylacetamide (d)	8270		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.6	ND	ND		ND
B-Picoline (e)	8270		(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)		(e)
Pyridine	8270		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND
1-Methyl-2-Pyrrolidinone (f)	8270		ND	ND	ND	ND	ND	0.16	ND	17	1.8	5.8	ND	2.5	ND	ND	ND		ND
Detection Limit Multiplier																			

Notes:
(a) - Listed as perchloroethylene in IEPA target compounds list
(b) - Listed as trichlorotrifluoroethane in IEPA target compounds list
(c) - Tentatively identified compounds; no detection limit; estimated concentrations
(d) - Listed as dimethylacetamide in IEPA target compounds list
(e) - See Table 1A for B-picoline results
(f) - Listed as n-methyl-2-pyrolidone in IEPA target compounds list

ND - Not Detected

TABLE 1A

METHYL PYRIDINE RESULTS (a)
SHALLOW SOIL SAMPLES - TANK FARM NO. 3 INTERIOR
SAFETY-KLEEN CORP.
CHICAGO RECYCLE CENTER

Compound	EPA Method	Scan No.	Sample Results															
			S1-SH	S1-DE	S2-SH	S2-DE	S3-SH	S3-DE	S4-SH	S4-DE	S5-SH	S5-DE	S6-SH	S6-DE	S7-SH	S8-SH	S8-DE	TRIP	FIELD
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/l
Methyl pyridine isomer	8270	249	0.61	4.2	1			ND	1.4							38			ND
Methyl pyridine isomer	8270	256	3.2					ND					1.1						ND
Methyl pyridine isomer	8270	255		1.5		8.6		ND			340								ND
Methyl pyridine isomer	8270	254					3.3	ND											ND
Methyl pyridine isomer	8270	265						ND		310									ND
Methyl pyridine isomer	8270	266						ND			53								ND
Methyl pyridine isomer	8270	252						ND							0.7				ND
Methyl pyridine isomer	8270	284						ND				880							ND
Methyl pyridine isomer	8270	250						ND					0.64						ND
Methyl pyridine isomer	8270	253						ND						18					ND
Methyl pyridine isomer	8270	258						ND									57		ND

Notes:
(a) - Listed as B-picoline in IEPA target compounds list; full chemical name is 3-methylpyridine - 3-picoline

ND - Not Detected

TABLE 2

RESULTS SUMMARY
SUPPLEMENTAL INVESTIGATION SOIL ANALYSES
SAFETY-KLEEN CORP.
CHICAGO RECYCLE CENTER

	B1-2A 2 - 4 ft	B1-3 4 - 6 ft	B2-2 2 - 4 ft	B2-5 8 - 10 ft	B3-4 6 - 8 ft	B3-5 8 - 10 ft	B3-6 10 -12 ft	B4-4 6 - 8 ft	B4-5 8 - 10 ft	B4-6 10 -12 ft	B4-7 12 - 14 ft	B4-8 14 - 16 ft	B4-9 16 - 18 ft	B4-10 18 - 20 ft
VOLATILES	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Toluene	0.006	0.027	0.017	0.087	0.110	1.2	6.8	0.410	0.029	0.008	ND	0.012	BDL	0.009
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorotrifluoroethane	ND	BDL	ND	BDL	BDL	ND	0.17	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	0.008	0.011	0.037	0.120	BDL	0.31	11	BDL	0.010	ND	ND	BDL	ND	ND
Trichloroethene	0.200	0.072	0.320	0.500	0.039	5.6	13	0.039	0.052	ND	ND	0.009	ND	BDL
Tetrahydrofuran	ND	BDL	ND	BDL	0.036	0.37	0.086	0.2	0.026	0.010	BDL	ND	BDL	BDL
Tetrachloroethene	BDL	ND	0.008	BDL	BDL	1.5	8.9	BDL	ND	ND	ND	ND	BDL	ND
Acetone	.022(B)	.031(B)	.025(B)	.180(B)	.004(B)	ND	.110(B)	.083(B)	.390(B)	.028(B)	.013(B)	.019(B)	BDL	.016(B)
SEMIVOLATILES														
Pyridine	ND	BDL	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B-Picoline	ND	40	BDL	0.54	1.1	0.63	1.8	11	0.75	0.47	ND	ND	BDL	ND
N,N-Dimethylacetamide	ND	BDL	ND	ND	ND	ND	BDL	ND	ND	ND	ND	ND	ND	ND
1-Methyl-2-Pyrrolidinone	ND	0.61	BDL	BDL	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 2

RESULTS SUMMARY
SUPPLEMENTAL INVESTIGATION SOIL ANALYSES
SAFETY-KLEEN CORP.
CHICAGO RECYCLE CENTER
(Continued)

	B5-2 2 - 4 ft	B5-3 4 - 6 ft	B5-4 6 - 8 ft	B5-5 8 - 10 ft	B5-6 10 - 12 ft	B6-3 4 - 6 ft	B6-5 8 - 10 ft	B8-2 2 - 4 ft	B8-5 8 - 10 ft	MW-1/3 4 - 6 ft	MW-1/4 6 - 8 ft	MW-2/4 6 - 8 ft	MW-2/6 10 - 12 ft	MW-4/3 4 - 6 ft See note (a)	MW-4/6 10 - 12 ft
VOLATILES	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Toluene	100	130	520	82	320	5.600	0.036	6.900	0.850	0.540	2.300	3.500	2.300	0.460	0.031
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorotrifluoroethane	ND	0.620	6.3	0.280	2	ND	ND	ND	0.430	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	0.7	140	120	220	420	ND	ND	ND	ND	BDL	ND	0.460	0.520	BDL	0.011
Trichloroethene	9.9	510	380	740	530	BDL	0.047	ND	1.300	0.600	0.800	8.400	5.200	0.340	0.055
Tetrahydrofuran	BDL	ND	ND	2.5	0.74	3.400	0.970	16	2.400	0.360	0.310	1.400	0.960	1.500	0.030
Tetrachloroethene	1.0	4.5	8.9	2.8	ND	ND	ND	ND	4.7	ND	ND	0.610	0.400	ND	ND
Acetone	2.2(B)	22.0(B)	13.0(B)	39.0(B)	ND	2.2(B)	BDL	ND	.430(B)	BDL	.370(B)	3.4(B)	.850(B)	.310(B)	0.310
SEMIVOLATILES															
Pyridine	31	83	330	280	120	BDL	BDL	ND	ND	BDL	BDL	BDL	17	ND	ND
B-Picoline	330	410	1400	1300	660	30	13	4	ND	39	5	570	310	7.7	ND
N,N-Dimethylacetamide	BDL	320	3400	5200	3000	1800	590	ND	ND	BDL	BDL	2500	2600	70	10
1-Methyl-2-Pyrrolidinone	13	31	52	64	310	70	83	ND	ND	BDL	ND	13	17	1.6	BDL

Notes:

(a) Proposed Monitoring Well MW-3 not installed; samples numbered MW-4/* are from location MW-3 on attached plan.

BDL - Below Detection Limit

ND - Nondetectable.

B - Compound found in blank and sample.

TABLE 3

WATER ELEVATION SUMMARY
SAFETY-KLEEN CORP.
CHICAGO RECYCLE CENTER

Location	Ground Elevation	Top of Casing Elevation	Water Elevation 10/22/91	Water Elevation 11/7/91
MW-1	594.08	594.02	NI	588.22
MW-2	594.19	593.87	NI	591.75
MW-3	593.36	593.21	NI	590.48
P-2	593.25	594.82	591.92	591.47
P-3	593.19	595.02	592.08	591.35
P-4	593.54	594.84	592.44	590.69

Note: NI = Not installed

TABLE 4

RESULTS SUMMARY - GROUND WATER SAMPLES
SUPPLEMENTAL INVESTIGATION
SAFETY-KLEEN CORP.
CHICAGO RECYCLE CENTER

Volatiles	MW-1 (mg/l)	MW-2 (mg/l)	MW-3 (mg/l)
Toluene	0.53	300	1.8
Chloromethane	ND	ND	ND
Trichlorotrifluoroethane	ND	5.5	ND
1,1,1-Trichloroethane	BDL	2.5	ND
Trichloroethene	0.057	16	ND
Tetrahydrofuran	2.1	ND	3
Tetrachloroethene	ND	0.44	ND
Acetone	0.13	ND	0.23
Semivolatiles			
Pyridine	BDL	2.4	BDL
B-Picoline	2.7	290	4.6
N,N-Dimethylacetamide	0.18	850	22
1-Methyl-2-Pyrrolidinone	0.11	12	0.16

Note:

ND - Nondetectable
BDL - Below detection limit

DRAWING NUMBER 90-280-B5

N

WEST 42nd STREET

FIRE SPRINKLER CONNECTION

GATE

GATE

PROCESS BUILDING No. 1

TANK FARM No. 1

TRUCK STATION No. 2

TRUCK STATION No. 3

MW-3

MW-2

B6

TANK FARM No. 2

P1

B5

TANK FARM No. 3

B4

MW-1

P4

P2

B3

B8

B-1

CONTAINER STORAGE AREA No. 1

PROCESS BUILDING No.2

TANK FARM No. 4

TRUCK STATION No. 1

TANK FARM No. 5

PUMP HOUSE

P3

B2

GATE

WEST 43rd STREET

LEGEND:

- PROPERTY LINE
- FENCE
- RAILROAD
- UTILITY POLE
- LIGHT POLE
- FIRE HYDRANT
- B3 SOIL BORING
- MW-1 MONITORING WELL
- P1 PIEZOMETER

APPROXIMATE SCALE

60 0 60 FEET

No.	DATE	ISSUE / REVISION	DWN. BY	CK'D BY	AP'D BY
2	12-6-91	ISSUED TO CLIENT AND AGENCY	GWB	TJA	PWL
1	12-5-91	ISSUED FOR REVIEW	SAK	TJA	PWL

REFERENCES:

- SAFETY KLEEN CORP., ELGIN ILLINOIS, DRAWING 88-62000-00, DATED 1987 REVISION 0.

SOIL BORING AND MONITORING WELL LOCATION PLAN
CHICAGO RECYCLE CENTER
CHICAGO, ILLINOIS

PREPARED FOR

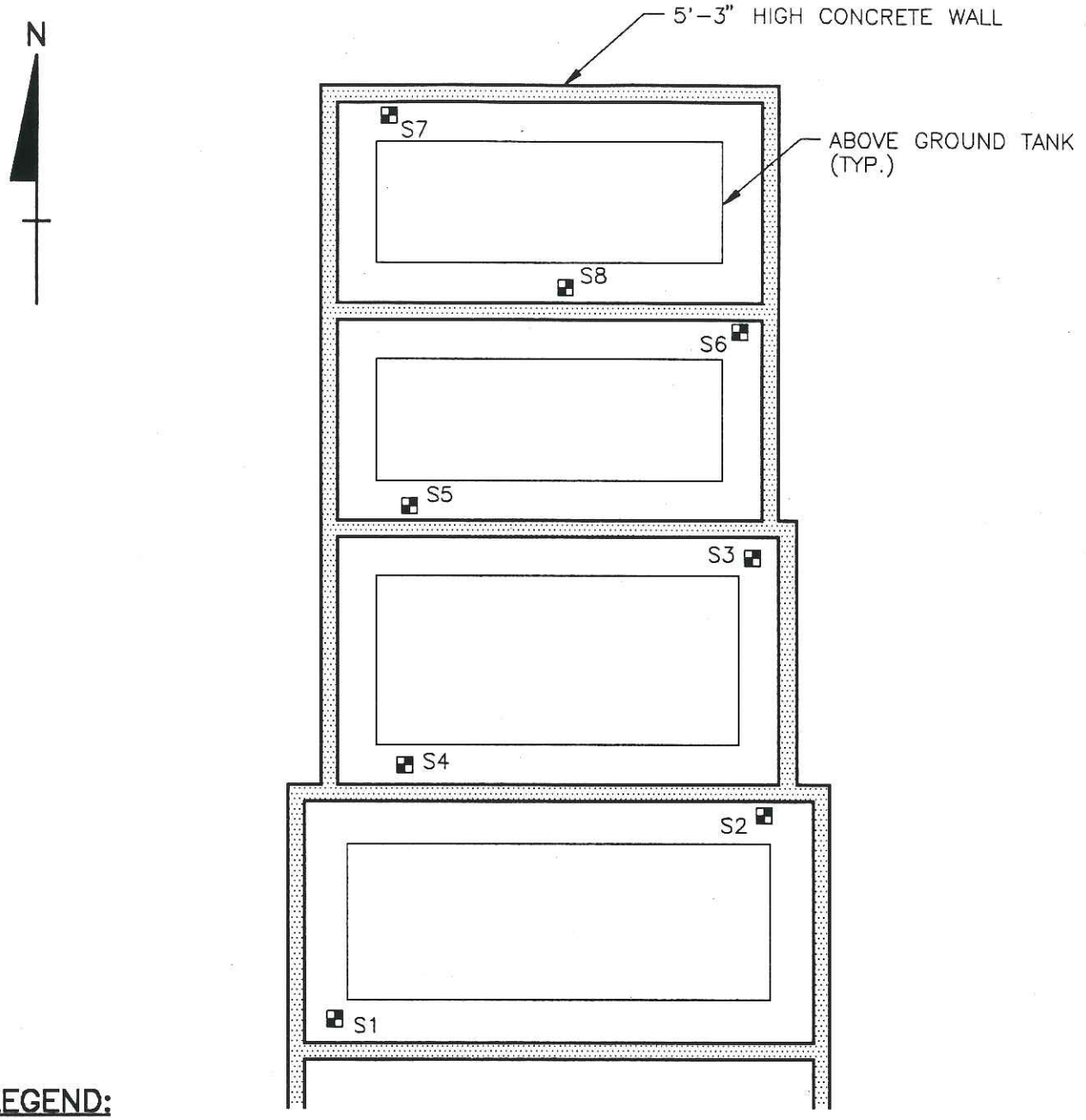
SAFETY-KLEEN CORP.

Canonie Environmental

DATE: 11-17-91	FIGURE 1	DRAWING NUMBER 90-280-B5
SCALE: AS SHOWN		

2

DRAWING NUMBER 90-280-A1



LEGEND:

■ SOIL SAMPLE LOCATION

NOTES:

1. SOIL SAMPLE, TANK LOCATIONS AND TANK SIZES ARE APPROXIMATE.

SCALE

10 0 10 FEET

REFERENCES:

- SAFETY-KLEEN CORP. CLOSURE PLAN, EXHIBIT 3.

No.	DATE	ISSUE / REVISION	DWN. BY	CK'D BY	AP'D BY
5	11-22-91	ISSUED FOR CLOSURE REPORT	SAK	CEA	CEA
4	11-18-91	ISSUED FOR CLOSURE REPORT	SAK	CEA	CEA
3	10-18-91	ISSUED FOR CLOSURE REPORT	DRE	CEA	
2	12-6-91	ISSUED TO CLIENT AND AGENCY	GWB	TJH	PWL
1	12-5-91	ISSUED FOR REVIEW	SAK	JCV	

SOIL SAMPLE LOCATIONS
TANK FARM No. 3
CHICAGO RECYCLE CENTER
CHICAGO, ILLINOIS

PREPARED FOR

SAFETY-KLEEN CORP.

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DATE: 2-13-91
SCALE: AS SHOWN

FIGURE 2

DRAWING NUMBER 90-280-A1

APPENDIX A

SOIL BORING LOGS

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BORING LOG

PROJECT No. 90-280-12
BORING No. B-1
LOGGED BY TJA/JAH
PAGE No. 1 of 1

PROJECT NAME Safety-Kleen Corp. - Chicago Recycle Center
BORING LOCATION B-1 Southwest/near power pole SURFACE ELEVATION 593.49
DRILLER Fox Drilling Company DATE: START 10/22/91 FINISH 10/22/91

DEPTH	SAMPLE No.	SAMPLE TYPE	SAMPLE INTERVAL FROM	SAMPLE INTERVAL TO	BLOW COUNT 0" 6"	BLOW COUNT 6" 12"	BLOW COUNT 12" 18"	REC (in)	USCS SOIL TYPE	OVA (ppm)	qu (TSF)	LAYER DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO
			0.0		60								No Recovery - Fill Coarse Limestone Aggregate.	
	1	SS		2.0				0					Refusal At 60 Blows for 6-In.	
			2.0										No Samples Obtained. Hit Rock	
	2	SS		4.0	5			6				4.0	Refusal After 6-In.	
5			4.0		4	4	3						Black/Dark Grey Clay. Organic Odor.	
	3	SS		6.0	5			20	CL	450			Slightly Wet. Fill Materials Also.	
			6.0		6	8	14							
	4	SS		8.0	12			24	CL/ML	90		8.0	A/A Very Wet - Still Organic Smell.	
			8.0		6	6	10						Silty Clay - Mottled.	
10	5	SS		10.0	16			22	SM/ML	30		10.0	Very Fine Grained Sand Or Silt - Grey. Wet And Flowing. Grains Clear Or White.	
													End Of Boring At 10 Ft. Clay Layer Approximately 4 Ft. Thick. Silt Below.	
15													Boring Grouted Back To Surface Using Hydrated Bentonite Chips. Concrete Surface Seal 1 Ft. Thick.	

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BORING LOG

PROJECT No. 90-280
BORING No. B-2
LOGGED BY TJA/JAH
PAGE No. 1 of 1

PROJECT NAME Safety-Kleen Corp. - Chicago Recycle Center
BORING LOCATION B-2 North Fence Line South Of TF #3 SURFACE ELEVATION 593.67
DRILLER Fox Drilling Company DATE: START 10/22/91 FINISH 10/22/91

DEPTH	SAMPLE No.	SAMPLE TYPE	INTERVAL FROM	INTERVAL TO	BLOW COUNT 0" to 6"	BLOW COUNT 6" to 12"	BLOW COUNT 12" to 18"	REC (in)	USCS SOIL TYPE	OVA (ppm)	qu (TSF)	LAYER DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO
			0.0										No Sample 0-2-In.	
	1	SS		2.0										
			2.0		40	18	60	12		1.8			Refusal At 16-In. Sand, Gravel - Variable Fill Materials - Moist.	
	2	SS		4.0										
5			4.0		20	60	-	6	SM	340.0			A/A Somewhat More Sandy - Wet. Strong Organic Vapor. Refusal After 6-In.	
	3	SS		6.0	-									
			6.0		9	10	10					7.0		
	4	SS		8.0	12			18	ML	10.0			Silt Grey/Brown, Mottled, Organic (Black) Inclusions. Moist/Wet.	
			8.0		5	7	9							
10	5	SS		10.0	10			20	ML	5.2		10.0	Wet Silt As Above. Flowed Out Of SS. Traces Fine Gravel.	
													End of Boring At 10 Ft.	
15													Borehold Grouted Using Hydrated Bentonite Chips And 1 Ft. Concrete Surface Seal.	

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BORING LOG

PROJECT No. 90-280
BORING No. B-3
LOGGED BY TJA/JAH
PAGE No. 1 of 1

PROJECT NAME Safety-Kleen Corp. - C.R.C.
BORING LOCATION B-3 Adjacent To Concrete Pad SURFACE ELEVATION 594.44
DRILLER Fox Drilling Company DATE: START 10/23/91 FINISH 10/23/91

DEPTH	SAMPLE No.	SAMPLE TYPE	INTERVAL FROM	INTERVAL TO	BLOW COUNT 0" to 6"	BLOW COUNT 6" to 12"	BLOW COUNT 12" to 18"	REC (in)	USCS SOIL TYPE	OVA (ppm)	qu (TSF)	LAYER DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO
			0.0		-	-	-						Concrete And Rubble Logged Off Auger	
	1	AR		2.0	-								Cuttings 1-1/2-In., Rubble 6-In. concrete Footing.	
			2.0		3	3	3						Fill Materials Mainly Sand And Fine Gravel.	
	2			4.0	3			6		2.8		4.0	Brown To Black. Some Brick Fragments.	
5			4.0		7	4	4						Hit Cavity. Black Wet Staining. Silty Clay.	
	3			6.0	7			12	CL/ML	36			Grey, Brown Mottled. Sand Lens Was Filled	
			6.0		6	11	13						With Black Water.	
	4			8.0	19			22	ML/CL	100			Silty/Clayey Silt. Grey/Pink Brown. Moist	
			8.0		12	12	10						Organic Odor. Mottled With Redish Brown Spots.	
10	5			10.0	14			20	ML	100			Wet Seam AT 8-9 Ft. 9-10 Ft. As Before.	
			10.0		7	14	19					10.0	Stiff Brown Clay At 10 Ft.	
	6			12.0	24			24	CL	15			Hard Brown/Grey Clay. Slightly Silty. Some	
												12.0	Pink/Brown Staining. Higher OVA Readings	
													Associated With Wet Silt Trapped In SS	
15													From Above.	
													End of Boring At 12 Ft.	
													Grouted Using Hydrated Bentonite Chips and 1 Ft. Concrete Surface Sea.	

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BORING LOG

PROJECT No. 90-280
BORING No. B-4
LOGGED BY TJA/JAH
PAGE No. 1 of 1

PROJECT NAME Safety-Kleen Corp. - CRC
BORING LOCATION B-4 South Of TF #2 SURFACE ELEVATION 593.74
DRILLER Fox Drilling Company DATE: START 10/23/91 FINISH 10/23/91

DEPTH	SAMPLE No.	SAMPLE TYPE	INTERVAL FROM	INTERVAL TO	BLOW COUNT 0" 6"	BLOW COUNT 6" 12"	BLOW COUNT 12" 18"	REC (in)	USCS SOIL TYPE	OVA (ppm)	qu (TSF)	LAYER DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO
													Limestone Aggregate And Fill Logged Off	
	1			2.0								2.0	Augers. Black Soil/Sand At Last 6 Ft.	
			2.0		5	4	4	18	ML	10			Clayey/Silt, Dry/Moist, Increasing Silt	
	2			4.0	5								Content at 4 Ft.	
5			4.0		3	3	60	12	ML/CL	10			A/A More Rocks, Moist. Strong Organic Odor.	
	3			6.0	-								6-7 Ft. Cavity. Wet Clayey Silt. Brown/Grey.	
			6.0		-	-	3						Strong Organic Odor. Some Black Staining	
	4			8.0	8			22	ML	1000				
			8.0		5	4	7					9.0		
10	5			10.0	14			24	CL	15			Hard Clay/Silty. Light Grey/Brown. Traces	
			10.0		4	7	11						Of Gravel. Si Moist/Dry.	
	6			12.0	12			22	CL	*				
			12.0		4	7	10							
	7			14.0	13			18	CL	*				
15			14.0		4	7	12							
	8			16.0	15			20	CL	*			A/A Dry	
			16.0		5	7	11							
	9			18.0	17			16	CL	*				
			18.0		5	10	13							
20	10			20.0	17			16	CL	*			A/A	
												20.0		
													End Of Boring At 20 Ft.	
25														
													* OVA Not Working 12 to 20 Ft. Replacement Arrived After Boring Completed. All Samples From These Zones Submitted For Analysis.	
													Borehold Grouted Using Hydrated Bentonite Chips And 1 Ft. Concrete Surface Seal.	

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BORING LOG

PROJECT No. 90-280
BORING No. B-5
LOGGED BY TJA/JAH
PAGE No. 1 of 1

PROJECT NAME Safety-Kleen Corp. - CRC
BORING LOCATION B-4 Between TF # 3 And TF #2 SURFACE ELEVATION 594.31
DRILLER Fox Drilling Company DATE: START 10/23/91 FINISH 10/23/91

DEPTH	SAMPLE No.	SAMPLE TYPE	INTERVAL FROM	INTERVAL TO	BLOW COUNT 0" to 6"	BLOW COUNT 6" to 12"	BLOW COUNT 12" to 18"	REC (in)	USCS SOIL TYPE	OVA (ppm)	qu (TSF)	LAYER DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO
			0.0									1.0	Concrete 1 Ft.	
	1	SS		2.0									No Sample	
			2.0		-	4	4						Fill And Sand. Yellow/Brown, With Black Staining	
	2	SS		4.0	6			18		1000		3.5	Strong Organic Odor. SI Moist.	
5			4.0		5	4	5						Silt, Some Black Staining. Strong Organic Odor.	
	3	SS		6.0	10			24	ML/CL	1000			Silt. Brown/Grey, Strong Organic Odor, Moist	
			6.0		7	9	11						Traces Clay.	
	4	SS		8.0	14			24		1000			Silty Clay, Brown/Grey, Very Strong Organic	
			8.0		6	7	8						Odor, SI Moist. Non-Plastic. Stiff/Very Stiff.	
10	5	SS		10.0	10			24	CL/ML	1000				
			10.0		5	10	17					11.0		
	6	SS		12.0	22			24	CL	600		12.0	Stiff, Brown Clay, Wet, Yellow Mottles.	
15													End Of Boring At 12 Ft.	
													Borehold Grouted Using Hydrated Bentonite Chips And 1 Ft. Concrete Surface Seal.	

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BORING LOG

PROJECT No. 90-280
BORING No. B-6
LOGGED BY TJA
PAGE No. 1 of 1

PROJECT NAME Safety-Kleen Corp. - Chicago Recycle Center
BORING LOCATION B-6 Between TF#2 And TF#3 North End SURFACE ELEVATION 593.52
DRILLER Fox Drilling Company DATE: START 10/23/91 FINISH 10/23/91

DEPTH	SAMPLE No.	SAMPLE TYPE	SAMPLE INTERVAL FROM	SAMPLE INTERVAL TO	BLOW COUNT 0" 6"	BLOW COUNT 6" 12"	BLOW COUNT 12" 18"	REC (in)	USCS SOIL TYPE	OVA (ppm)	qu (TSF)	LAYER DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO
			0.0										Concrete And Gravel Fill.	
	1			2.0									Refusal After 6 Inches. Fill, Gravel, Sand. Black	
			2.0		2	R	R	6	FILL	400			Staining, Organic Odor.	
	2			4.0	R								A/A Silt And Strong Odor.	
5					4	6	9					5.0		
	3			6.0	14			22		1000			Gray, Silt/Clay, Moist, OVA Was Lightest At Top	
			6.0		3	4	10		CL/ML				In Zone Above. Silt Layer 550 ppm.	
	4			8.0	15			22		1000			AA But More Black Staining.	
					9	9	12					9.0	A/A Less Stained.	
10				10.0	21			24	CL/ML	150		10.0	Brown/Grey Silty Clay, Some Yellow Sand, Trace Gravel Inclusions. Very Stiff/Stiff.	
15													End Of Boring At 10 Ft.	
													Grouted Using Hydrated Bentonite Chips And 1 Ft. Concrete Surface Seal.	

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BORING LOG

PROJECT No. 90-280
BORING No. B-8
LOGGED BY TJA
PAGE No. 1 of 1

PROJECT NAME Safety-Kleen Corp. - CRC
BORING LOCATION B-8 Due South Of TF#3 SURFACE ELEVATION 593.36
DRILLER Fox Drilling Company DATE: START 10/23/91 FINISH 10/23/91

DEPTH	SAMPLE No.	SAMPLE TYPE	INTERVAL FROM	INTERVAL TO	BLOW COUNT 0" 6"	BLOW COUNT 6" 12"	BLOW COUNT 12" 18"	REC (in)	USCS SOIL TYPE	OVA (ppm)	qu (TSF)	LAYER DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO
			0.0									1.0	Concrete	
	1			2.0									Brown/Grey Clayey Silt. Black Staining	
			2.0		3	4	6		CL/ML	100			Strong Organic Odor. Moist. Med. Stiff.	
	2			4.0	12					400				
5			4.0		11	12	13		CL/ML				Silt As Above. Grey. Brown/Yellow Mottling. Moist.	
	3			6.0	17					300				
			6.0		7	6	3		CL			7.0		
	4			8.0	7							8.0	Medium Stiff Clay. Grey With Some Brown	
			8.0		3	11	10		ML	1000		9.0	Staining. Moist. Sl silty.	
10	5			10.0	16				CL/ML			10.0	Silt Seam - Moist.	
													Clay Some Silt. Grey/Brown Yellow Staining Moist Stiff/Very Stiff.	
15													End Boring At 10 Ft.	
													Borehole Grouted Using Hydrated Bentonite Chips.	

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BORING LOG

PROJECT No. 90-280
BORING No. MW-1
LOGGED BY TJA
PAGE No. 1 of 1

PROJECT NAME Safety-Kleen Corp. - CRC
BORING LOCATION MW-1 South Of TF#2 SURFACE ELEVATION 594.02 (TOC)
DRILLER Fox Drilling Company DATE: START 10/23/91 FINISH 10/23/91

DEPTH	SAMPLE No.	SAMPLE TYPE	INTERVAL FROM	INTERVAL TO	BLOW COUNT 0" 6"	BLOW COUNT 6" 12"	BLOW COUNT 12" 18"	REC (in)	USCS SOIL TYPE	OVA (ppm)	qu (TSF)	LAYER DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO
			0.0		100	-	-						Concrete 2-1/2 Ft.	
	1			2.0	-								Smells Of Mineral Spirits.	
			2.0		-	-	-						Not Sampled..	
	2			4.0	-								Grey/Brown Silt. Strong Organic Odor.	
5			4.0		4	6	11	18	ML	140		4.0	Mottled With Yellow Spots. SI Moist.	
	3			6.0	16									
			6.0		9	10	12							
	4			8.0	12			20	ML	1000				
			8.0		9	9	7					9.0		
10	5			10.0	8			24	CL	460			Grey Brown, Silty Clay, Strong Organic Odor.	
												10.0		
													End Boring At 10 Ft.	
15													Stainless Steel Well Installed At 9 Ft. See Well Construction Details.	

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BORING LOG

PROJECT No. 90-280
BORING No. MW-2
LOGGED BY TJA
PAGE No. 1 of 1

PROJECT NAME Safety-Kleen Corp. - CRC
BORING LOCATION MW-2 North And West Of TF#3 SURFACE ELEVATION 593.87 (TOC)
DRILLER Fox Drilling Company DATE: START 10/24/91 FINISH 10/24/91

DEPTH	SAMPLE No.	SAMPLE TYPE	SAMPLE INTERVAL FROM	SAMPLE INTERVAL TO	BLOW COUNT 0" 6"	BLOW COUNT 6" 12"	BLOW COUNT 12" 18"	REC (in)	USCS SOIL TYPE	OVA (ppm)	qu (TSF)	LAYER DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO
			0.0										Concrete And Fill Cored.	
	1			2.0										
			2.0											
	2			4.0								4.0	No Samples.	
5			4.0		34	5	3						Sand Fill Materials, Strong Organic Odor.	
	3			6.0	2			12	Fill	1000		6.0	Sand And Concrete Fragments.	
			6.0		2	2	6						Black/Dark Brown Silt, Some Clay, Moist/Wet	
	4			8.0	7			22	ML	1000			Black Staining In Places.	
			8.0		4	4	11							
10	5			10.0	15			22	CL/ML	400		10.0	A/A	
			10.0		4	7	15						Silty clay. Brown/Dark Grey, Organic Odor	
	6			12.0	20			18	CL	300			Moist, Stiff/Very Stiff.	
												12.0	A/A Very Stiff, Slightly Silty.	
15														
													End Of Boring At 12 Ft.	
													Well Screen Set At 10 Ft.	

Rev. 8-88

Canonie

BORING LOG

PROJECT No. 90-280
BORING No. MW-3
LOGGED BY TJA
PAGE No. 1 of 1

PROJECT NAME Safety-Kleen Corp. - CRC
BORING LOCATION MW-3 North Of TF#3 Near Process Bldg. SURFACE ELEVATION 593.21 (TOC)
DRILLER Fox Drilling Company DATE: START 10/25/91 FINISH 10/25/91

DEPTH	SAMPLE No.	SAMPLE TYPE	INTERVAL FROM	INTERVAL TO	BLOW COUNT 0" 6"	BLOW COUNT 6" 12"	BLOW COUNT 12" 18"	REC (in)	USCS SOIL TYPE	OVA (ppm)	qu (TSF)	LAYER DEPTH	SOIL DESCRIPTION AND REMARKS	PIEZO
			0.0										Concrete 1 Ft.	
	1			2.0								2.0	Not Sampled - Gravel And Concrete.	
			2.0		3	2	2	12		800			Fill, Wood Fragments, Sand Misc. Black	
	2			4.0	4								Staining, Strong Organic Odor Wet.	
5			4.0		2	2	4							
	3			6.0	19			12		1000		6.0	A/A Lots Of Wood, And Black Staining. Wet.	
			6.0		R	R	R						No Sample.	
	4			8.0	R			0				8.0		
			8.0		10	18	28						Grey/Brown; Silt/Clayey Silt/ Organic Odor;	
10	5			10.0	27			18	ML/CL	1000			Yellow Mottling; Very Stiff.	
			10.0		9	17	25							
	6			12.0	26			18	CL/ML	450			A/A. SI Plastic.	
												12.0		
15													End Of Boring At 12 Ft.	
													Well Screen Set At 10 Ft.	
													See Well Construction Details.	

Rev. 8-88

APPENDIX B

MONITORING WELL DETAILS

Canonie

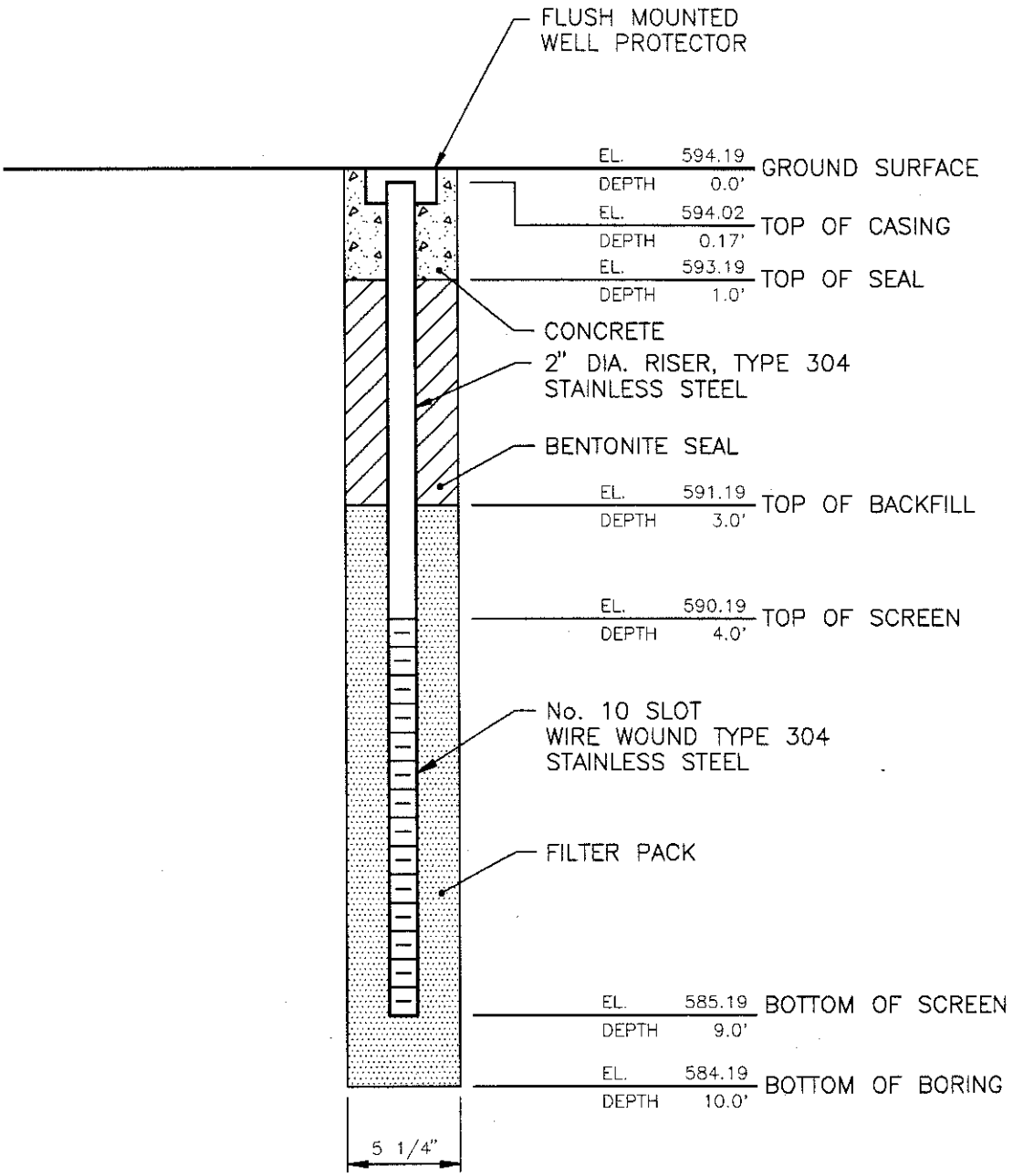
Monitoring Well Details

PROJECT No. 90-280-12

WELL No. MW-1

PROJECT NAME SAFETY KLEEN - CHICAGO RECYCLE CENTER

WELL LOCATION SEE DRAWING 90-280-B5 DATE 10-26-91 BY TJA



NOTES:

1. NOT DRAWN TO SCALE.
2. SEE BORING LOG MW-1 FOR DETAILED SOIL DESCRIPTION.

Canonie

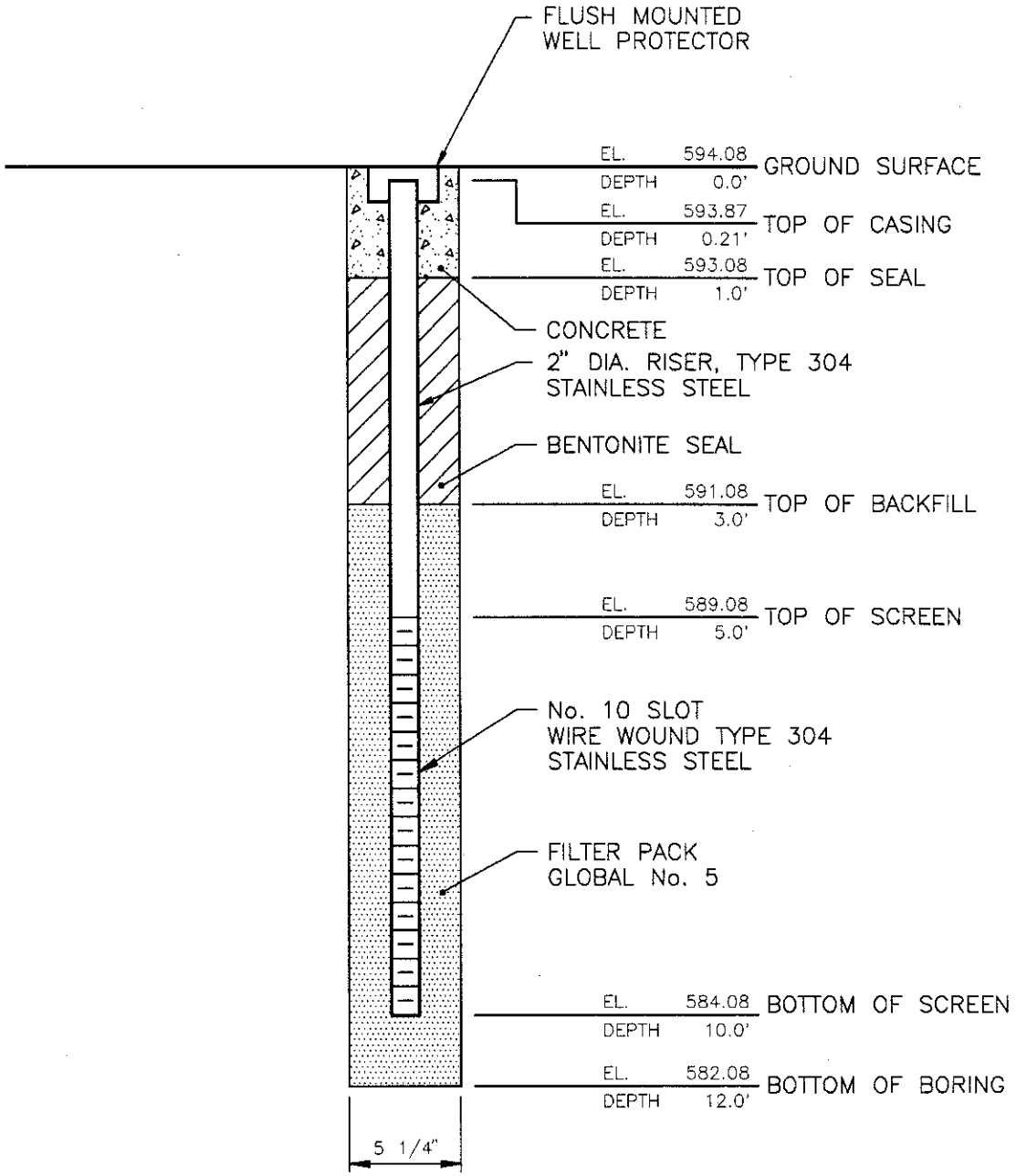
Monitoring Well Details

PROJECT No. 90-280-12

WELL No. MW-2

PROJECT NAME SAFETY KLEEN - CHICAGO RECYCLE CENTER

WELL LOCATION SEE DRAWING 90-280-B5 DATE 10-24-91 BY TJA



NOTES:

1. NOT DRAWN TO SCALE.
2. SEE BORING LOG MW-2 FOR DETAILED SOIL DESCRIPTION.

Canonie

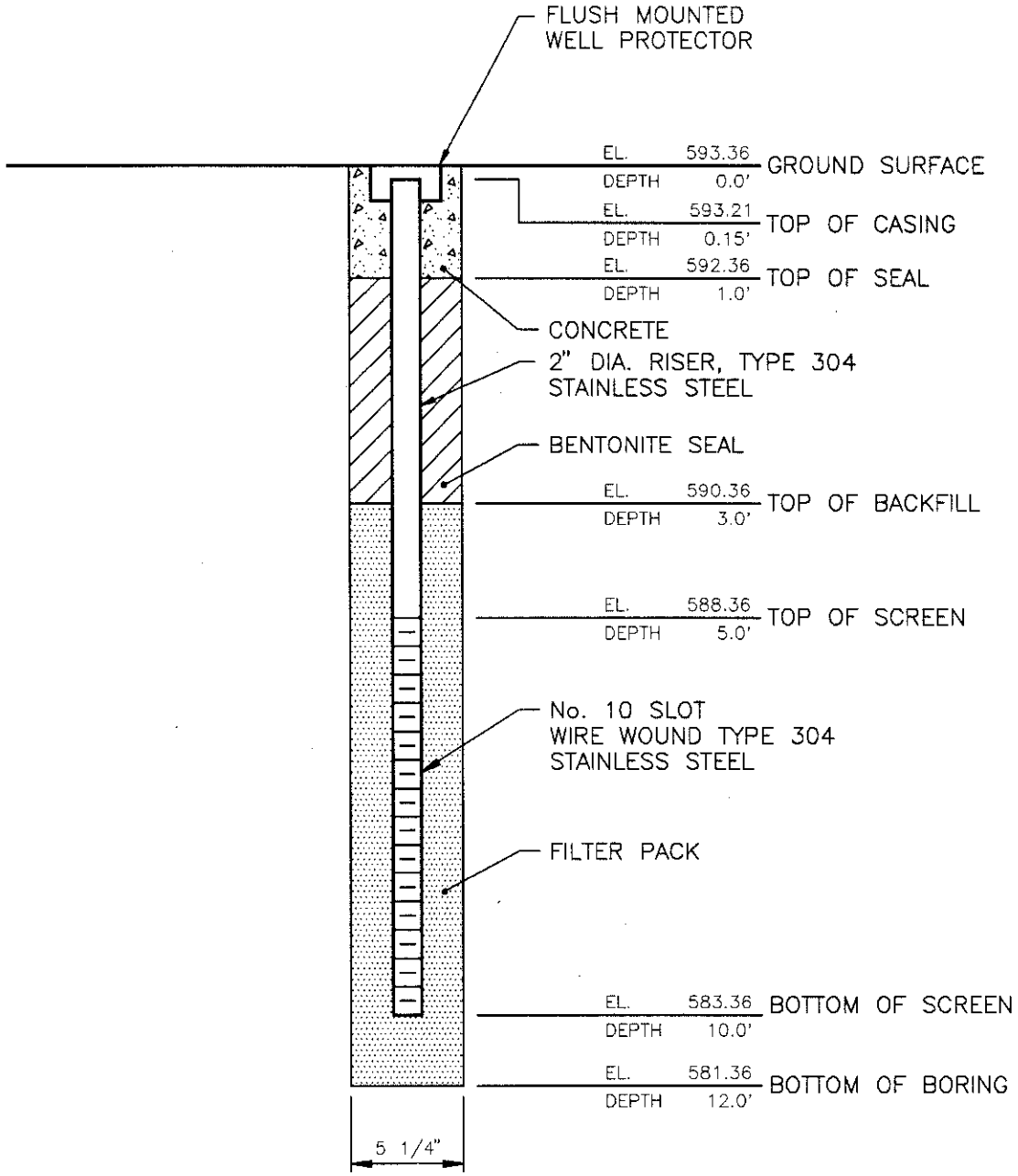
Monitoring Well Details

PROJECT No. 90-280-12

WELL No. MW-3

PROJECT NAME SAFETY KLEEN - CHICAGO RECYCLE CENTER

WELL LOCATION SEE DRAWING 90-280-B5 DATE 10-25-91 BY TJA



NOTES:

1. NOT DRAWN TO SCALE.
2. SEE BORING LOG MW-3 FOR DETAILED SOIL DESCRIPTION.

APPENDIX C

RMT INVESTIGATION

RMT, Inc.
744 Heartland Trail
P.O. Box 8923
Madison, WI 53708-8923
Phone: 608-831-4444
FAX: 608-831-3334

June 11, 1991

Mr. Scott Davies
Senior Project Manager - Remediation
Safety-Kleen Corporation
777 Big Timber Road
Elgin, IL 60123

RE: Results of VOC analyses on ground water samples from Safety-Kleen Chicago Recycle Center

Dear Scott:

This letter summarizes the results of RMT's chemical analyses on the ground water samples collected from the study area near Tank Farm No. 3 at Safety-Kleen's Chicago Recycle Center (Figure 1). The laboratory data sheets are included as Attachment A.

RESULTS OF CHEMICAL ANALYSES

The ground water samples were collected using the methods described in our May 1991 letter to you, and were analyzed at RMT Analytical Laboratories using EPA Method 8010/8020. The results of the analyses are summarized in Table 1. The laboratory gas chromatograph (GC) analyses of ground water generally support the results of the headspace analyses with the portable GC reported in our May 1991 letter. Levels of toluene (470,000 µg/L) were observed in sample P-1, collected within the diked area of Tank Farm No. 3, as well as methylene chloride (9,500 µg/L) and chloroform (50,000 µg/L). Outside the Tank Farm, there were no significant toluene detects, and methylene chloride and chloroform were detected at relatively low levels.

The chromatogram from the analysis of sample P-2, collected immediately south of Tank Farm No. 3, showed a large unknown peak between the retention times for chloroform and 1,2-dichloroethylene. No other compounds were identified during the analysis. Identification of this peak may be possible using a gas chromatograph/mass spectrometer (GC/MS) method (e.g., EPA Method 8240).

The samples from well points P-3 and P-4 contained low levels of various chlorinated compounds, but contained no toluene and showed only minor concentrations of methylene chloride and chloroform. Consequently, the release at the Tank Farm does not appear to be the principal source of the VOCs detected to the south and southeast of the Tank Farm, based on the dissimilarities among chemical species and concentrations present in the ground water samples from within the Tank Farm (P-1) and well points P-2, P-3, and P-4.

Table 1 includes the observed concentrations in ground water samples from the site and the proposed Sample Action Levels (SALs) from the Proposed RCRA Corrective Action Rule for Solid Waste Management Units at Hazardous Waste Management Facilities (Federal Register, July 27,

1990). The VOCs in well P-1 exceed the proposed SALs for methylene chloride and chloroform by 3 to 4 orders of magnitude, and for toluene by a factor of 50. The VOCs in well point P-4 exceed the proposed SALs for methylene chloride and trichloroethylene by factors of 2 and 6, respectively.

If we can be of any further assistance to you in this matter, please call.

Sincerely,

GENE FMS

Eugene L. McLinn
Hydrogeologist

FRED

Frederick M. Swed, Jr., P.E.
Project Manager

mp

Attachments

2251.01 0000:MSG:davies.2

RMT INC
LABORATORIES

CLIENT: SAFETY KLEEN
SAMPLE #: 66511
PROJECT #: 02251.01
WORK ORDER #: 910510-0225101

REPORT DATE: 05/30/91
COLLECTION DATE: 05/09/91
STATION ID: P1
SAMPLE COLLECTOR: ELM

VOLATILE ORGANIC ANALYSIS REPORT - METHOD 8010 & 8020

PARAMETER	RESULT	UNITS
CHLOROMETHANE	<10000	ug/l
BROMOMETHANE	<10000	ug/l
VINYL CHLORIDE	<5000	ug/l
DICHLORODIFLUOROMETHANE	<10000	ug/l
CHLOROETHANE	<10000	ug/l
METHYLENE CHLORIDE	9500	ug/l
FLUOROTRICHLOROMETHANE	<10000	ug/l
1,1-DICHLOROETHYLENE	<5000	ug/l
1,1-DICHLOROETHANE	<5000	ug/l
1,2-DICHLOROETHYLENE (TOTAL)	<5000	ug/l
CHLOROFORM	50000	ug/l
1,2-DICHLOROETHANE	<5000	ug/l
1,1,1-TRICHLOROETHANE	<10000	ug/l
CARBON TETRACHLORIDE	<5000	ug/l
BROMODICHLOROMETHANE	<5000	ug/l
1,2-DICHLOROPROPANE	<5000	ug/l
CIS-1,3-DICHLOROPROPYLENE	<10000	ug/l
TRICHLOROETHYLENE	<10000	ug/l
BENZENE	<5000	ug/l
1,1,2-TRICHLOROETHANE	<5000	ug/l
TRANS-1,3-DICHLOROPROPYLENE	<10000	ug/l
CHLORODIBROMOMETHANE	<5000	ug/l
2-CHLOROETHYLVINYL ETHER	<25000	ug/l
BROMOFORM	<5000	ug/l
TETRACHLOROETHYLENE	<10000	ug/l
1,1,2,2-TETRACHLOROETHANE	<10000	ug/l
TOLUENE	470000	ug/l
CHLOROBENZENE	<5000	ug/l
ETHYLBENZENE	<5000	ug/l
XYLENES	<15000	ug/l
1,3-DICHLOROBENZENE	<5000	ug/l
1,2-DICHLOROBENZENE	<5000	ug/l
1,4-DICHLOROBENZENE	<5000	ug/l

Mark A. Mieritz

Mark Mieritz, Organic Supervisor

RMT INC
LABORATORIES

CLIENT: SAFETY KLEEN
SAMPLE #: 66512
PROJECT #: 02251.01
WORK ORDER #: 910510-0225101

REPORT DATE: 05/30/91
COLLECTION DATE: 05/09/91
STATION ID: P2
SAMPLE COLLECTOR: ELM

VOLATILE ORGANIC ANALYSIS REPORT - METHOD 8010 & 8020

PARAMETER	RESULT	UNITS
CHLOROMETHANE	<1000L	ug/l
BROMOMETHANE	<1000L	ug/l
VINYL CHLORIDE	<500L	ug/l
DICHLORODIFLUOROMETHANE	<1000L	ug/l
CHLOROETHANE	<1000L	ug/l
METHYLENE CHLORIDE	<500L	ug/l
FLUOROTRICHLOROMETHANE	<1000L	ug/l
1,1-DICHLOROETHYLENE	<500L	ug/l
1,1-DICHLOROETHANE	<500L	ug/l
1,2-DICHLOROETHYLENE (TOTAL)	<500L	ug/l
CHLOROFORM	<500L	ug/l
1,2-DICHLOROETHANE	<500L	ug/l
1,1,1-TRICHLOROETHANE	<1000L	ug/l
CARBON TETRACHLORIDE	<500L	ug/l
BROMODICHLOROMETHANE	<500L	ug/l
1,2-DICHLOROPROPANE	<500L	ug/l
CIS-1,3-DICHLOROPROPYLENE	<1000L	ug/l
TRICHLOROETHYLENE	<1000L	ug/l
BENZENE	<500L	ug/l
1,1,2-TRICHLOROETHANE	<500L	ug/l
TRANS-1,3-DICHLOROPROPYLENE	<1000L	ug/l
CHLORODIBROMOMETHANE	<500L	ug/l
2-CHLOROETHYLVINYL ETHER	<2500L	ug/l
BROMOFORM	<500L	ug/l
TETRACHLOROETHYLENE	<1000L	ug/l
1,1,2,2-TETRACHLOROETHANE	<1000L	ug/l
TOLUENE	<500L	ug/l
CHLOROBENZENE	<500L	ug/l
ETHYLBENZENE	<500L	ug/l
XYLENES	<1500L	ug/l
1,3-DICHLOROBENZENE	<500L	ug/l
1,2-DICHLOROBENZENE	<500L	ug/l
1,4-DICHLOROBENZENE	<500L	ug/l

Mark A. Mieritz

Mark Mieritz, Organic Supervisor

RMT INC
LABORATORIES

CLIENT: SAFETY KLEEN
SAMPLE #: 66513
PROJECT #: 02251.01
WORK ORDER #: 910510-0225101

REPORT DATE: 05/30/91
COLLECTION DATE: 05/09/91
STATION ID: P3
SAMPLE COLLECTOR: ELM

VOLATILE ORGANIC ANALYSIS REPORT - METHOD 8010 & 8020

PARAMETER	RESULT	UNITS
CHLOROMETHANE	<2.0	ug/l
BROMOMETHANE	<2.0	ug/l
VINYL CHLORIDE	<1.0	ug/l
DICHLORODIFLUOROMETHANE	<2.0	ug/l
CHLOROETHANE	4.4	ug/l
METHYLENE CHLORIDE	1.9	ug/l
FLUOROTRICHLOROMETHANE	<2.0	ug/l
1,1-DICHLOROETHYLENE	<1.0	ug/l
1,1-DICHLOROETHANE	23	ug/l
1,2-DICHLOROETHYLENE (TOTAL)	4.8	ug/l
CHLOROFORM	1.1	ug/l
1,2-DICHLOROETHANE	<1.0	ug/l
1,1,1-TRICHLOROETHANE	<2.0	ug/l
CARBON TETRACHLORIDE	<1.0	ug/l
BROMODICHLOROMETHANE	<1.0	ug/l
1,2-DICHLOROPROPANE	<1.0	ug/l
CIS-1,3-DICHLOROPROPYLENE	<2.0	ug/l
TRICHLOROETHYLENE	3.2	ug/l
BENZENE	<1.0	ug/l
1,1,2-TRICHLOROETHANE	<1.0	ug/l
TRANS-1,3-DICHLOROPROPYLENE	<2.0	ug/l
CHLORODIBROMOMETHANE	<1.0	ug/l
2-CHLOROETHYLVINYL ETHER	<5.0	ug/l
BROMOFORM	<1.0	ug/l
TETRACHLOROETHYLENE	<2.0	ug/l
1,1,2,2-TETRACHLOROETHANE	<2.0	ug/l
TOLUENE	<1.0	ug/l
CHLOROBENZENE	<1.0	ug/l
ETHYLBENZENE	<1.0	ug/l
XYLENES	<3.0	ug/l
1,3-DICHLOROBENZENE	<1.0	ug/l
1,2-DICHLOROBENZENE	<1.0	ug/l
1,4-DICHLOROBENZENE	<1.0	ug/l

Mark A. Mieritz

Mark Mieritz, Organic Supervisor

RMT INC
LABORATORIES

CLIENT: SAFETY KLEEN
SAMPLE #: 66514
PROJECT #: 02251.01
WORK ORDER #: 910510-0225101

REPORT DATE: 05/30/91
COLLECTION DATE: 05/09/91
STATION ID: P4
SAMPLE COLLECTOR: ELM

VOLATILE ORGANIC ANALYSIS REPORT - METHOD 8010 & 8020

PARAMETER	RESULT	UNITS
CHLOROMETHANE	<20	ug/l
BROMOMETHANE	<20	ug/l
VINYL CHLORIDE	<10	ug/l
DICHLORODIFLUOROMETHANE	<20	ug/l
CHLOROETHANE	24	ug/l
METHYLENE CHLORIDE	12	ug/l
FLUOROTRICHLOROMETHANE	<20	ug/l
1,1-DICHLOROETHYLENE	<10	ug/l
1,1-DICHLOROETHANE	96	ug/l
1,2-DICHLOROETHYLENE (TOTAL)	21	ug/l
CHLOROFORM	<10	ug/l
1,2-DICHLOROETHANE	<10	ug/l
1,1,1-TRICHLOROETHANE	29	ug/l
CARBON TETRACHLORIDE	<10	ug/l
BROMODICHLOROMETHANE	<10	ug/l
1,2-DICHLOROPROPANE	<10	ug/l
CIS-1,3-DICHLOROPROPYLENE	<20	ug/l
TRICHLOROETHYLENE	28	ug/l
BENZENE	<10	ug/l
1,1,2-TRICHLOROETHANE	<10	ug/l
TRANS-1,3-DICHLOROPROPYLENE	<20	ug/l
CHLORODIBROMOMETHANE	<10	ug/l
2-CHLOROETHYLVINYL ETHER	<50	ug/l
BROMOFORM	<10	ug/l
TETRACHLOROETHYLENE	<20	ug/l
1,1,2,2-TETRACHLOROETHANE	<20	ug/l
TOLUENE	<10	ug/l
CHLOROBENZENE	<10	ug/l
ETHYLBENZENE	<10	ug/l
XYLENES	<30	ug/l
1,3-DICHLOROBENZENE	<10	ug/l
1,2-DICHLOROBENZENE	<10	ug/l
1,4-DICHLOROBENZENE	<10	ug/l

Mark A. Mieritz

Mark Mieritz, Organic Supervisor

QUALIFIERS

B= Analyte is present in the blank as well as the sample.

E= Analyte exceeds calibration range, but is within linear range.

Hn= Sample analysis was past hold time by n number of days.

I= Detection limit raised due to interfering endogenous peak(s).

L= Sample could not be run at a lower dilution because of high levels of unrequested compound(s).

F= Sample had repeated surrogate failure.

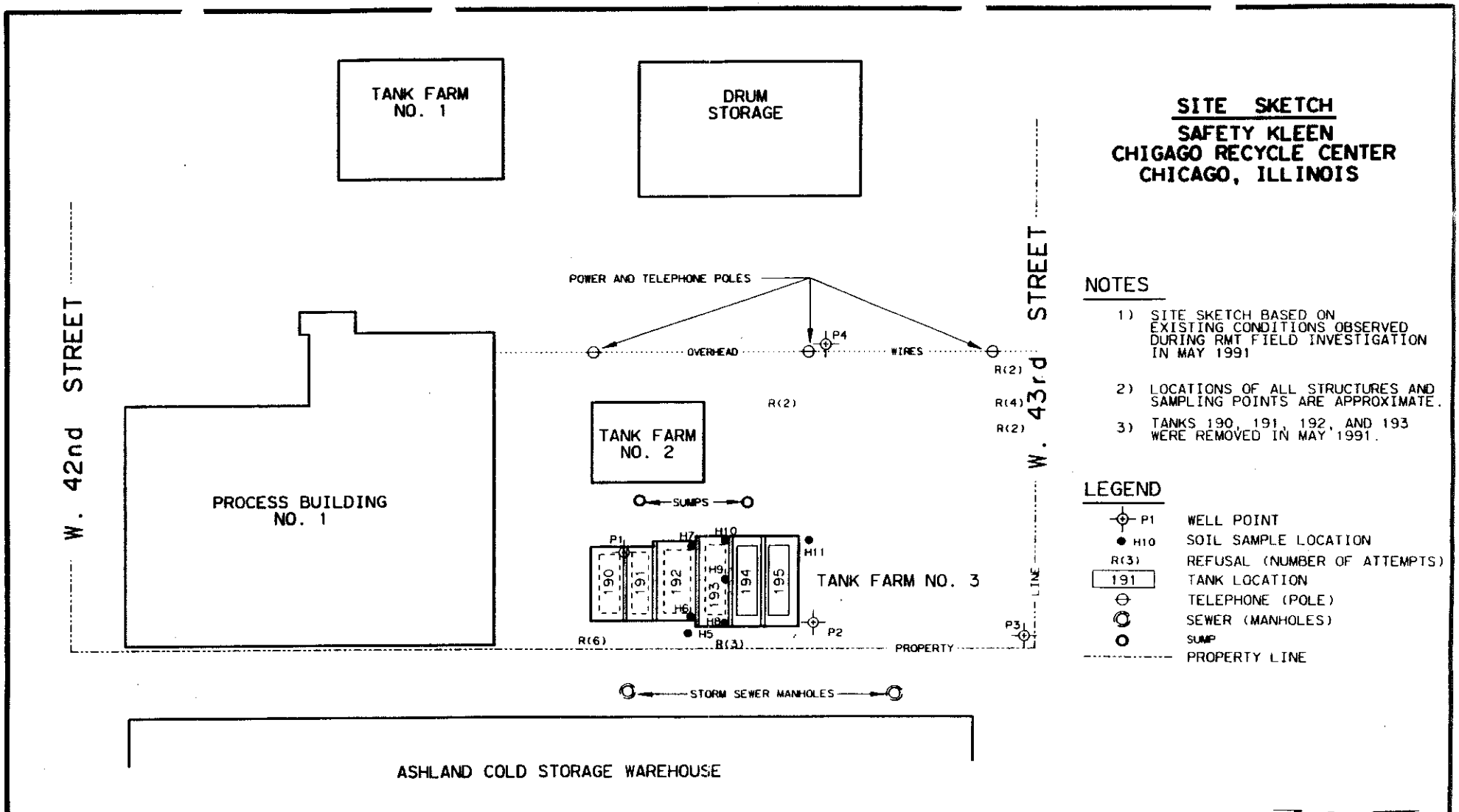
R= Slight retention time variance between sample and standard. Analyte cannot be confirmed by this method.

V= Insufficient sample volume prohibited sample re-analysis.

N= RPD high due to non-homogeneity of sample.

C= Detection limit raised due to co-elution.

S= Sampled with significant headspace.



SITE SKETCH

SAFETY KLEEN
CHIGAGO RECYCLE CENTER
CHICAGO, ILLINOIS

NOTES

1) SITE SKETCH BASED ON EXISTING CONDITIONS OBSERVED DURING RMT FIELD INVESTIGATION IN MAY 1991

2) LOCATIONS OF ALL STRUCTURES AND SAMPLING POINTS ARE APPROXIMATE.

3) TANKS 190, 191, 192, AND 193 WERE REMOVED IN MAY 1991.

LEGEND

P1	WELL POINT
H10	SOIL SAMPLE LOCATION
R(3)	REFUSAL (NUMBER OF ATTEMPTS)
191	TANK LOCATION
	TELEPHONE (POLE)
	SEWER (MANHOLES)
	SUMP
	PROPERTY LINE

SCALE: 1" = 50'

DWN BY:	RJB
DATE:	MAY 1991
PROJ. NO.	2251.01
FILE NO.	2251OXOI

FIGURE 1

TABLE 1

VOC CONCENTRATIONS IN GROUND WATER SAMPLES

Sample Location[1]	Concentration (µg/L)								
	MC[3]	CF[3]	TOL[3]	CE[3]	1,1-DCA[3]	1,2-DCE[3]	TCE[3]	1,1,1-TCA[3]	PCE[3]
P-1	9,500	50,000	470,000	< 10,000	< 5,000	< 5,000	< 10,000	< 10,000	< 10,000
P-2[2]	< 500	< 500	< 500	< 1,000	< 500	< 500	< 1,000	< 1,000	< 1,000
P-3	1.9	1.1	< 1.0	4.4	23	4.8	3.2	< 2.0	< 2.0
P-4	12	< 10	< 10	24	96	21	28	29	< 20
Proposed RCRA SALs[3]	5	6	10,000	NA	NA	NA	5	3,000	0.7

NOTES:

[1] Sample locations are shown on Figure 1.

[2] Detection levels elevated because of large unknown peak during sample elution.

[3] MC = methylene chloride
CF = chloroform
TOL = toluene
CE = chloroethane
1,1-DCA = 1,1-dichloroethane
1,2-DCE = 1,2-dichloroethylene
TCE = trichloroethylene
1,1,1-TCA = 1,1,1-trichloroethane
PCE = perchloroethylene
SALs = Suggested Action Levels
NA = Not available

2251.01 0000:MSG:davies.2

ATTACHMENT A

RMT, Inc.
744 Heartland Trail
P.O. Box 8923
Madison, WI 53708-8923
Phone: 608-831-4444
FAX: 608-831-3334

May 24, 1991

Mr. Scott Davies
Sr. Project Manager-Remediation
Safety Kleen
777 Big Timber Road
Elgin, IL 60123

RE: Soil Vapor Survey at the Safety Kleen Chicago Recycle Facility

Dear Scott:

This letter summarizes the results of RMT's soil gas survey and limited subsurface investigation of the area near Tank Farm No. 3 at Safety Kleen's Chicago Recycle facility.

SCOPE OF INVESTIGATION

RMT performed an on-site investigation during the period from May 7 to May 9, 1991. The study was conducted at Safety Kleen's request. The results of this investigation will be used to prepare an amended closure plan designed to more fully evaluate the extent of the subsurface impacts related to the Tank Farm No. 3 area. The study area is shown on Figure 1 and lies within the southwest corner of the Safety Kleen Chicago Recycle facility. The northwest corner of the study area corresponds to the northwest corner of Tank Farm No. 3, and the southeast corner was the power line pole at the southern property boundary. Soil samples were collected from the shallow subsurface using hand tools, and soil headspace was analyzed in the field with a portable gas chromatograph.

Soil samples were collected at 15 locations, including Tank Farm No. 3 and the area to the south and southeast, as shown on Figure 1. No samples were collected north or west of the tank farm because of the thickness and hardness of the fill material, and/or general inaccessibility due to site features. The thickness of concrete in numerous locations rendered coring attempts ineffective. Refusal in fill was also encountered above the water table at five locations at the site.

RMT installed four well points based on the results of the soil headspace analyses and collected ground water samples for volatile organic chemical (VOC) analysis using EPA Method 8010/8020. The results of the ground water analyses will be submitted to Safety Kleen in a subsequent letter report.

SUBSURFACE CONDITIONS

Subsurface exploration at the site was complicated by the thickness of concrete pavement and the presence of rubble and fill from former buildings and roads buried beneath the existing land surface. Subsurface conditions observed during this investigation were consistent with the results of

foundation borings installed during construction of the new Safety Kleen office building, north of 42nd Street, and of previous excavations at the Chicago Recycle facility to the west of the study area, according to the plant manager.

Soil samples were collected with a soil probe, post-hole digger, pickax, and split-spoon sampler. Concrete was penetrated at several locations using a rotary hammer. Sample locations are indicated on Figure 1.

The fill encountered at the site was between 2 and 3.5 feet thick. The fill consisted of bricks, concrete slabs, granite paving stones, and dolomite flagstones. To the east of Tank Farm 3, several layers of concrete slabs and bricks were exposed with a minimum thickness of 2.5 feet. Granular fill, consisting of fine to coarse sand and some fine gravel, was encountered during exploration inside the tank farm. The fill was underlain throughout the site by clayey silt to clay that was brownish gray to black, soft, plastic, and wet. The clay and silt belong to the Carmi Member of the Equality Formation (Willman and Lineback, 1970).

The area around Tank Farm No. 3 was surrounded by poured concrete dikes that extended 5 feet above grade and 4 feet below grade, according to the plant manager. The above-grade portion of most of the dikes were removed by Canonie Environmental, Inc. (Canonie), but the subsurface portion of the dikes were left in place. Canonie was demolishing the dikes when RMT was on-site. The area contained by the dikes for Tank Farm No. 3 is mostly unpaved, and the rest of the site is discontinuously paved.

SOIL GAS ANALYSIS

Soil samples were collected from the split-spoon, auger, or soil sampler, and were placed in 40-mL VOA vials with Teflon®-coated septa caps. The vials were filled approximately half full of soil. VOCs in the soil were allowed to equilibrate with the overlying air in the VOA vial (the headspace) for approximately 30 minutes or more. The headspace was sampled with a gas-tight syringe, and then was injected into a Photovac 10S50 portable gas chromatograph (GC) for analysis. Based on previous sampling results at the facility, the GC was calibrated for toluene, trichloroethene (TCE), and tetrachloroethene (PCE) using freshly prepared gas standards at the start of the project. Standards were run several times daily for retention time calibration. Replicate samples were run on every sample location, and duplicate injections were made for each sample. In addition, regular checks were made for syringe and empty vial contamination.

SOIL GAS RESULTS

Results of the soil gas analysis are presented in Table 1. The results are presented as µL/L, or parts per million by volume (ppmv) of gas in this headspace over the soil sample. PPMV is a different unit of measure than part per million by weight (mg/kg), as used in laboratory analysis of soil, The two measurements are not directly comparable, because of the potential for complex partitioning of a compound into the dissolved, gaseous, or sorbed phases.

The results indicate that some, but not all, of the soil samples inside the concrete wall surrounding the tank area have elevated concentrations of toluene and TCE, with much lower concentrations of PCE. These results are generally consistent with the previous analysis of the soil by Canonie. Two soil headspace locations, H-6 and H-8, were adjacent to sampling location S-4 and S-1, respectively, from which samples had been collected and analyzed previously by Canonie. For comparison, RMT's soil headspace and Canonie's compositional analysis are presented in Table 2.

The headspace analysis is in approximate agreement with compositional analysis. For sample S-4/H-6, toluene was the major component identified in both analyses, with lower concentrations of TCE and much lower levels of PCE. Both compositional analysis and headspace analysis showed low levels for the three VOCs in sample S-1/H-8. Both the headspace analysis and compositional analysis also showed that the shallow samples had lower concentrations of toluene and TCE than did the deeper samples. The deeper samples were collected from below the water table.

Samples outside of the Tank Farm No. 3 area also had detectable concentrations of toluene or TCE in the soil headspace. Sample H-5, just to the west of the enclosure wall, had measurable concentrations of both toluene and TCE. The samples to the south of the retaining wall around tank 195 (P-2 deep and H-11 deep) had detectable levels of toluene. Sample P-3, at the southwest corner of the property, had detectable concentrations of toluene and TCE in one of the two replicate samples; the other sample had no detectable concentrations. Sample P-4, near the telephone pole east of tank 195, also had detectable levels of toluene in the headspace.

The results suggest that the soil within the Tank Farm has elevated levels of toluene and TCE, and that lower levels of toluene were detected in samples outside of the enclosed area.

HYDROGEOLOGY

Four well points, consisting of 3-foot-long stainless-steel screens and 3-foot-long galvanized iron risers, were installed with a slide hammer at locations of interest, based on the results of the soil headspace analysis with the portable GC. Well points were installed inside Tank Farm No. 3 (P-1), immediately south of the tank farm (P-2), at the southwestern corner of the site (P-3), and 100 feet east of the tank farm (P-4) as indicated on Figure 1.

The subsurface portion of the dikes extends through the fill to the underlying clay, based on soil samples collected from inside the tank farm. This likely restricts lateral ground water flow from the tank farm by forcing the water to flow through the clay instead of through the overlying granular fill and, as a result, may serve to contain chemical constituents within the diked area. The depth to water varied from 0.5 to 1 foot below grade within the tank farm dikes and from 2.5 to 3.5 feet below grade south of the tank farm. The water table was encountered in the granular fill within the diked area of the tank farm and in the underlying clay south of the tank farm. Because the ground surface within Tank Farm No. 3 is mostly unpaved and the subsurface portion of the dikes restrict lateral ground water flow, it is likely that enhanced recharge is occurring in this area, causing the formation of a ground water mound.

A storm sewer at the Ashland Cold Storage facility, approximately 25 feet west of Tank Farm 3, may influence shallow ground water flow locally, because the invert for the storm sewer or the

associated backfill likely intersects the water table. No uncontrolled storm sewers exist at the Safety Kleen facility.

Ground water samples were collected with a PVC bailer from well points P-2, P-3, and P-4 after development. Well point P-1 was bent during installation, so the sample from location P-1 was collected by digging a hole next to the well and allowing it to fill with water. A sheen and solvent odors were detected on the surface of water in the holes for P-1 and P-2.

CONCLUSION

Based on the results of the analyses of soil headspace and the solvent odors associated with well points P-1 and P-2, solvents associated with Tank Farm No. 3 have affected soils and probably ground water. Additional information regarding ground water quality will be available upon receipt of the analytical data. A letter report summarizing this data will be submitted to Safety Kleen in the future.

We hope that this information and discussion are useful. Please call if you have any questions.

Sincerely,

Eugene L. McLinn
Hydrogeologist

FRED

Frederick M. Swed, Jr., P.E.
Project Manager

nsr

2251.01:MSD:davies.1

TABLE 1

RESULTS OF SOIL HEADSPACE ANALYSIS, MAY 1991

Sample Location	Sample Depth (ft.)	Saturated/ Unsaturated	Soil Headspace Concentration µL/L (ppmv)		
Inside Tank Farm No.3			Toluene	TCE	PCE
P-1	1.5	S	2,700	25	BD
H-7	1.5	S	2,230	974	BD
H-6	1.5	S	2,480	510	BD
H-10	0.5	U	0.34	0.76	1.22
H-10	0.3	S	1,600	11,000	BD
H-9	1.5	S	380	7.5	BD
H-8	1.5	U	BD	BD	BD
Outside Tank Farm No.3					
H-5	2	U	4.2	7.2	BD
P-2	0.5	U	BD	0.21	BD
P-2	3.5	S	20.5	BD	BD
H-11	0.5	U	0.02	3.2	BD
H-11	3.5	S	7.85	0.05	BD
P-3	3.5	S	1.7	0.35	BD
P-4	3	S	5.12	BD	BD
P-4	4	S	0.65	BD	BD

NOTES: 1. TCE = trichloroethylene, PCE = perchloroethylene, BD = below detection limits, S = saturated, U = unsaturated

2. Soil headspace was analyzed in the field with a portable gas chromatograph.

2251.01:MSD:davies.1

TABLE 2

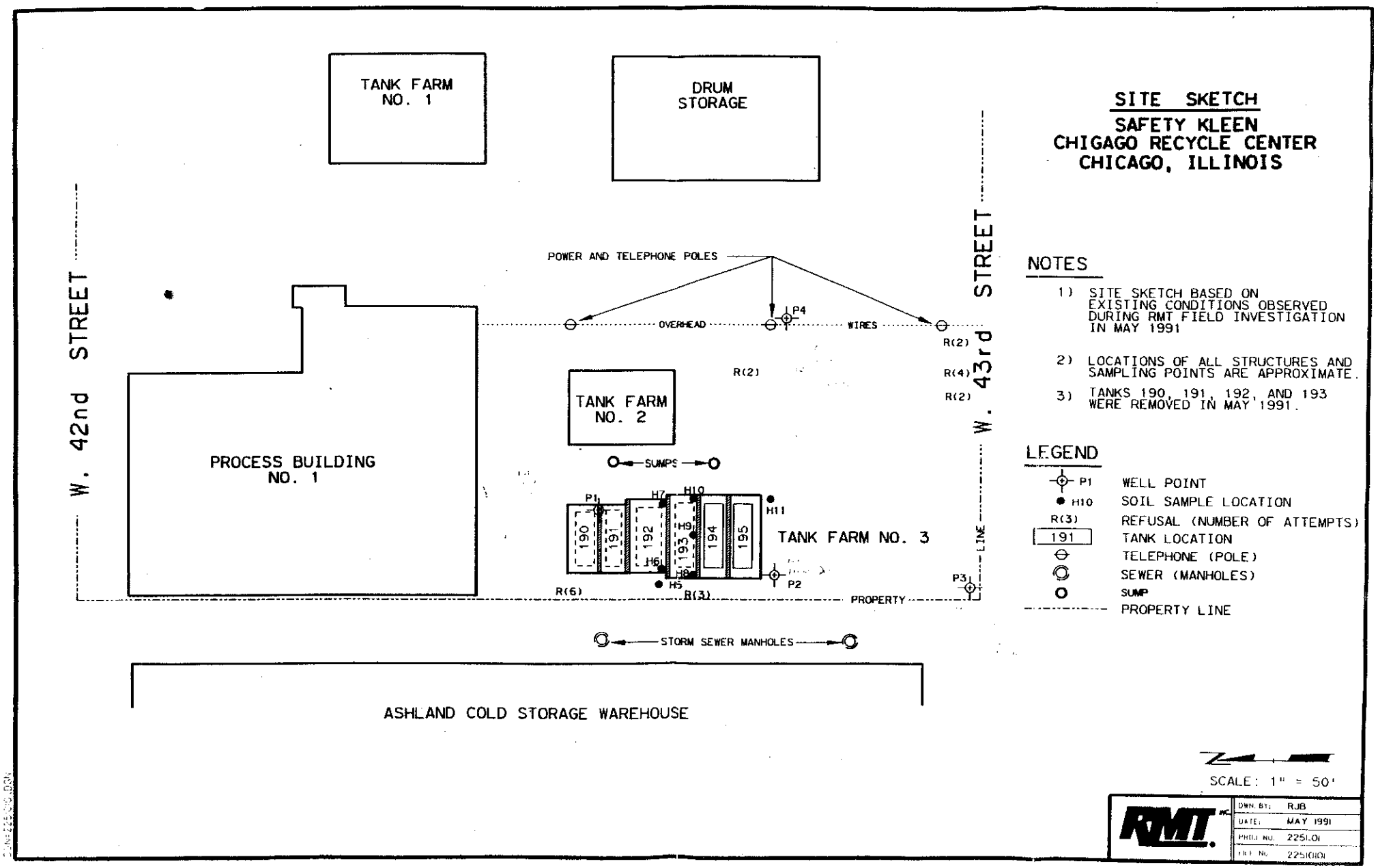
COMPARISON OF SOIL HEADSPACE AND COMPOSITIONAL ANALYSIS

Sample S-4/H-6	Toluene	TCE	PCE
Compositional Analysis, mg/kg	44,000	2,800	42
Headspace, µL/L	2,480	510	80
Sample S-1/H-8	**Toluene**	**TCE**	**PCE**
Compositional Analysis, mg/kg	0.012	0.92	< 0.005
Headspace, µL/L	BD	BD	BD

NOTES: 1. Soil samples S-4 and S-1 were collected by Canonie and analyzed for VOCs using EPA Method 8240 in February 1991. Samples H-6 and H-8 were collected by RMT and the soil headspace analyzed for Toluene, TCE, and PCE using a portable gas chromatograph in May 1991.

2. TCE = trichloroethylene, PCE = perchloroethylene, BD = below detection limit.

2251.01:MSD:davies.1



SITE SKETCH

SAFETY KLEEN
CHIGAGO RECYCLE CENTER
CHICAGO, ILLINOIS

NOTES

1) SITE SKETCH BASED ON EXISTING CONDITIONS OBSERVED DURING RMT FIELD INVESTIGATION IN MAY 1991

2) LOCATIONS OF ALL STRUCTURES AND SAMPLING POINTS ARE APPROXIMATE.

3) TANKS 190, 191, 192, AND 193 WERE REMOVED IN MAY 1991.

LEGEND

P1	WELL POINT
H10	SOIL SAMPLE LOCATION
R(3)	REFUSAL (NUMBER OF ATTEMPTS)
191	TANK LOCATION
	TELEPHONE (POLE)
	SEWER (MANHOLES)
	SUMP
	PROPERTY LINE

SCALE: 1" = 50'

RMT, INC.

DWN. BY:	RJB
DATE:	MAY 1991
PROJ. NO.	2251.01
TKT. NO.	2251(01)

APPENDIX D

SOIL SAMPLING ANALYTICAL RESULTS

Roy F. Weston, Inc. - Gulf Coast Laboratories
INORGANIC ANALYTICAL DATA PACKAGE FOR
Canonie Environmental

LABORATORY CHRONICLE
DATE RECEIVED: 10/24/91 RFW LOT # :9110G371

CLIENT ID /ANALYSIS	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
B1-2A						
% SOLIDS	001	S	91GTS416	10/22/91	10/29/91	10/29/91
B1-3						
% SOLIDS	002	S	91GTS416	10/22/91	10/29/91	10/29/91
B2-2						
% SOLIDS	003	S	91GTS416	10/22/91	10/29/91	10/29/91
B2-5						
SOLIDS	004	S	91GTS416	10/22/91	10/29/91	10/29/91
LAB QC:						
% SOLIDS	MB1	W	91GTS416	N/A	10/29/91	10/29/91

SIGNATURE Connie L. Hanson DATE 10-31-91

WESTON-GULF COAST LABORATORIES, INC
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077

ANALYTICAL REPORT

To: Canonie Environmental
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: Mr. Terry Ashworth

Date: Thursday October 31st, 1991

RE: **B1-2A**
Project # 0000-00-00-0000
Lab ID: **9110G371-001**
Sample Date: 10/22/91
Date Received: 10/24/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	84.4	%	0.10

WESTON-GULF COAST LABORATORIES INC
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 23

ANALYTICAL REPORT

To: Canonie Environmental
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday October 31st, 1991

RE: **B1-3**
Project # 0000-00-00-0000
Lab ID: **9110G371-002**
Sample Date: 10/22/91
Date Received: 10/24/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	76.8	%	0.10

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) [illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday October 31st, 1991

RE: **B2-2**
Project # 0000-00-00-0000
Lab ID: **9110G371-003**
Sample Date: 10/22/91
Date Received: 10/24/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	66.1	%	0.10

WESTON-GULF COAST LABORATORIES, INC
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) [illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday October 31st, 1991

RE: **B2-5**
Project # 0000-00-00-0000
Lab ID: **9110G371-004**
Sample Date: 10/22/91
Date Received: 10/24/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	75.1	%	0.10

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-[illegible]

ANALYTICAL REPORT

To: Canonie Environmental
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: Mr. Terry Ashworth

Date: Thursday October 31st, 1991

Project # 0000-00-00-0000
Lab Batch: 9110G371

Inorganic Method Blank Data Report

Sample	Lab ID	Parameter	Result		Units	Reporting Limit
Blank 1	91GTS416-MB1	% Solids	0.10	u	%	0.10

Roy F. Weston, Inc. - Gulf Coast Laboratories
VOA ANALYTICAL DATA PACKAGE FOR
Canonie Environmental

LABORATORY CHRONICLE
DATE RECEIVED: 10/24/91 RFW LOT # :9110G371

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
B1-2A	001	S	91GVC343	10/22/91	N/A	11/05/91
B1-3	002	S	91GVC342	10/22/91	N/A	11/05/91
B2-2	003	S	91GVC344	10/22/91	N/A	11/05/91
B2-5	004	S	91GVC342	10/22/91	N/A	11/05/91
LAB QC:						
VBLK	MB1	S	91GVC343	N/A	N/A	11/05/91
VBLK	MB1 BS	S	91GVC343	N/A	N/A	11/05/91
VBLK	MB1	S	91GVC342	N/A	N/A	11/04/91
VBLK	MB1	S	91GVC344	N/A	N/A	11/05/91
VBLK	MB1 BS	S	91GVC344	N/A	N/A	11/06/91

SIGNATURE Jeff A. Kazinski DATE 11-18-91

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7503

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Monday November 18th, 1991

RE: **B1-2A**
Project # 0000-00-00-0000
Lab ID: **9110G371-001**
Sample Date: 10/22/91
Date Received: 10/24/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	6	6	
Chloromethane	BDL	12	U
Trichlorotrifluoroethane	BDL	12	U
1,1,1-Trichloroethane	8	6	
Trichloroethene	200	6	
Tetrahydrofuran	BDL	6	U
Tetrachloroethene	4	6	J
Acetone	22	12	B

WESTON-GULF COAST LABORATORIES, INC
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-[illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Monday November 18th, 1991

RE: **B1-3**
Project # 0000-00-00-0000
Lab ID: **9110G371-002**
Sample Date: 10/22/91
Date Received: 10/24/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	27	6	
Chloromethane	BDL	13	U
Trichlorotrifluoroethane	2	13	J
1,1,1-Trichloroethane	11	6	
Trichloroethene	72	6	
Tetrahydrofuran	1	6	J
Tetrachloroethene	BDL	6	U
Acetone	31	13	B

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Monday November 18th, 1991

RE: **B2-2**
Project # 0000-00-00-0000
Lab ID: **9110G371-003**
Sample Date: 10/22/91
Date Received: 10/24/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	17	8	
Chloromethane	BDL	15	U
Trichlorotrifluoroethane	BDL	15	U
1,1,1-Trichloroethane	37	8	
Trichloroethene	320	8	
Tetrahydrofuran	BDL	8	U
Tetrachloroethene	8	8	
Acetone	25	15	B

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Monday November 18th, 1991

RE: **B2-5**
Project # 0000-00-00-0000
Lab ID: **9110G371-004**
Sample Date: 10/22/91
Date Received: 10/24/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	87	33	
Chloromethane	BDL	66	U
Trichlorotrifluoroethane	19	66	J
1,1,1-Trichloroethane	120	33	
Trichloroethene	500	33	
Tetrahydrofuran	18	33	J
Tetrachloroethene	21	33	J
Acetone	180	66	B

Roy F. Weston, Inc. - Gulf Coast Laboratories
VOLATILES BY GC/MS, SPECIAL LIST
Report Date: 11/18/91 13:11

RFW Batch Number: 9110G371 Client: Canonie Environmental Work Order: 0000-00-00-0000 Page: 1a

	Cust ID:	B1-2A	B1-3	B2-2	B2-5	VBLK	VBLK BS
Sample Information	RFW#:	001	002	003	004	91GVC343-MB1	91GVC343-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	5.00	1.00	1.00
	Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Surrogate Recovery	Toluene-d8	104 %	108 %	115 %	104 %	97 %	96 %
	Bromofluorobenzene	91 %	88 %	85 %	88 %	101 %	101 %
	1,2-Dichloroethane-d4	99 %	97 %	98 %	99 %	100 %	102 %
Toluene		6	27	17	87	5 U	96 %
Chloromethane		12 U	13 U	15 U	66 U	10 U	10 U
Trichlorotrifluoroethane		12 U	2 J	15 U	19 J	10 U	10 U
1,1,1-Trichloroethane		8	11	37	120	5 U	5 U
Trichloroethene		200	72	320	500	5 U	135 %
Tetrahydrofuran		6 U	1 J	8 U	18 J	5 U	5 U
Tetrachloroethene		4 J	6 U	8	21 J	5 U	5 U
Acetone		22 B	31 B	25 B	180 B	21	12 B

*= Outside of EPA CLP QC limits.

	Cust ID:	VBLK			VBLK			VBLK BS						
Sample Information	RFW#:	91GVC342-MB1			91GVC344-MB1			91GVC344-MB1						
	Matrix:	SOIL			SOIL			SOIL						
	D.F.:	1.00			1.00			1.00						
	Units:	ug/Kg			ug/Kg			ug/Kg						
Surrogate Recovery	Toluene-d8	97	%		101	%		100	%					
	Bromofluorobenzene	101	%		96	%		102	%					
	1,2-Dichloroethane-d4	99	%		96	%		104	%					
Toluene		5	U		5	U		115	%					
Chloromethane		10	U		10	U		10	U					
Trichlorotrifluoroethane		10	U		10	U		10	U					
1,1,1-Trichloroethane		5	U		5	U		5	U					
Trichloroethene		5	U		5	U		122	%					
Tetrahydrofuran		5	U		5	U		5	U					
Tetrachloroethene		5	U		5	U		5	U					
Acetone		21			27			13	B					

*= Outside of EPA CLP QC limits.

WESTON

Roy F. Weston, Inc. - Gulf Coast Laboratories
BNA ANALYTICAL DATA PACKAGE FOR
Canonie Environmental

LABORATORY CHRONICLE
DATE RECEIVED: 10/24/91 RFW LOT # :9110G371

CLIENT ID	RFW #		MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
B1-2A	001		S	91GB0485	10/22/91	10/29/91	11/07/91
B1-3	002		S	91GB0485	10/22/91	10/29/91	11/07/91
B1-3	002	01	S	91GB0485	10/22/91	10/29/91	11/14/91
B2-2	003		S	91GB0485	10/22/91	10/29/91	11/07/91
B2-5	004		S	91GB0485	10/22/91	10/29/91	11/07/91
LAB QC:							
SBLK	MB1		S	91GB0485	N/A	10/29/91	11/07/91
SBLK	MB1 BS		S	91GB0485	N/A	10/29/91	11/07/91
SBLK	MB1 BSD		S	91GB0485	N/A	10/29/91	11/07/91

SIGNATURE Jeff A. Kaminski DATE 11-15-91

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-[illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Friday November 15th, 1991

RE: **B1-2A**
Project # 0000-00-00-0000
Lab ID: **9110G371-001**
Sample Date: 10/22/91
Date Received: 10/24/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	BDL	400	U
2-Picoline	BDL	400	U
N,N-Dimethylacetamide	BDL	400	U
1-Methyl-2-pyrrolidinone	BDL	400	U

WESTON-GULF COAST LABORATORIES, INC
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077

ANALYTICAL REPORT

To: Canonie Environmental
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: Mr. Terry Ashworth

Date: Monday November 18th, 1991

RE: B1-3
Project # 0000-00-00-0000
Lab ID: 9110G371-002
Sample Date: 10/22/91
Date Received: 10/24/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	240	430	J
2-Picoline	E	430	
N,N-Dimethylacetamide	310	430	J
1-Methyl-2-pyrrolidinone	610	430	

WESTON-GULF COAST LABORATORIES, INC
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 7[illegible]

ANALYTICAL REPORT

To: Canonie Environmental
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: Mr. Terry Ashworth

Date: November 18, 1991

Re: B1-3
Project # 0000-00-00-0000
Lab ID: 9110G371-002 DL
Sample Date: 10/22/91
Date Received: 10/24/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Compound	Result	Detection Limit	Flag
3-Picoline	40000	2200	

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 733-

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Friday November 15th, 1991

RE: **B2-2**
Project # 0000-00-00-0000
Lab ID: **9110G371-003**
Sample Date: 10/22/91
Date Received: 10/24/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	BDL	500	U
2-Picoline	BDL	500	U
N,N-Dimethylacetamide	BDL	500	U
1-Methyl-2-pyrrolidinone	160	500	J

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7503

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Friday November 15th, 1991

RE: **B2-5**
Project # 0000-00-00-0000
Lab ID: **9110G371-004**
Sample Date: 10/22/91
Date Received: 10/24/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	BDL	440	U
2-Picoline	BDL	440	U
N,N-Dimethylacetamide	BDL	440	U
1-Methyl-2-pyrrolidinone	59	440	J

		Cust ID:	B1-2A		B1-3		B1-3		B2-2		B2-5		SBLK	
Sample Information		RFW#:	001		002		002 DL		003		004		91GB0485-MB1	
		Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
		D.F.:	1.00		1.00		5.00		1.00		1.00		1.00	
		Units:	UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
Surrogate Recovery	Nitrobenzene-d5		54	%	77	%	D	%	68	%	65	%	65	%
	2-Fluorobiphenyl		60	%	80	%	D	%	71	%	62	%	64	%
	Terphenyl-d14		74	%	95	%	D	%	99	%	70	%	70	%
	Phenol-d5		67	%	100	%	D	%	77	%	74	%	66	%
	2-Fluorophenol		62	%	89	%	D	%	66	%	73	%	58	%
	2,4,6-Br3-phenol		45	%	96	%	D	%	77	%	63	%	45	%
Pyridine			400	U	240	J	NA		500	U	440	U	330	U
3-Picoline			400	U		E	40000		250	J	540		330	U
N,N-Dimethylacetamide			400	U	310	J	NA		500	U	440	U	330	U
1-Methyl-2-pyrrolidinone			400	U	610		NA		160	J	59	J	330	U

		Cust ID:	SBLK BS		SBLK BSD	
Sample Information		RFW#:	91GB0485-MB1		91GB0485-MB1	
		Matrix:	SOIL		SOIL	
		D.F.:	1.00		1.00	
		Units:	UG/KG		UG/KG	
Surrogate Recovery	Nitrobenzene-d5		90	%	90	%
	2-Fluorobiphenyl		74	%	74	%
	Terphenyl-d14		95	%	98	%
	Phenol-d5		83	%	87	%
	2-Fluorophenol		70	%	80	%
	2,4,6-Br3-phenol		40	%	52	%
Pyridine			330	U	330	U
3-Picoline			330	U	330	U
N,N-Dimethylacetamide			330	U	330	U
1-Methyl-2-pyrrolidinone			330	U	330	U

*= Outside of EPA CLP QC limits.

WESTON

Roy F. Weston, Inc. - Gulf Coast Laboratories
INORGANIC ANALYTICAL DATA PACKAGE FOR
Canonie Environmental

LABORATORY CHRONICLE
DATE RECEIVED: 10/25/91 RFW LOT # :9110G393

CLIENT ID /ANALYSIS	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
B3-4						
% SOLIDS	001	S	91GTS416	10/23/91	10/29/91	10/29/91
B3-5						
% SOLIDS	002	S	91GTS416	10/23/91	10/29/91	10/29/91
B3-6						
% SOLIDS	003	S	91GTS416	10/23/91	10/29/91	10/29/91
B4-4						
SOLIDS	004	S	91GTS416	10/23/91	10/29/91	10/29/91
B4-5						
% SOLIDS	005	S	91GTS416	10/23/91	10/29/91	10/29/91
B8-2						
% SOLIDS	006	S	91GTS416	10/23/91	10/29/91	10/29/91
B8-5						
% SOLIDS	007	S	91GTS416	10/23/91	10/29/91	10/29/91
LAB QC:						
% SOLIDS	MB1	W	91GTS416	N/A	10/29/91	10/29/91

SIGNATURE Diane L. Harper DATE 10-31-91

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: Canonie Environmental
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday October 31st, 1991

RE: **B3-4**
Project # 0000-00-00-0000
Lab ID: **9110G393-001**
Sample Date: 10/23/91
Date Received: 10/25/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	79.1	%	0.10

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday October 31st, 1991

RE: **B3-5**
Project # 0000-00-00-0000
Lab ID: **9110G393-002**
Sample Date: 10/23/91
Date Received: 10/25/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	80.8	%	0.10

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday October 31st, 1991

RE: **B3-6**
Project # 0000-00-00-0000
Lab ID: **9110G393-003**
Sample Date: 10/23/91
Date Received: 10/25/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	79.5	%	0.10

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7553

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday October 31st, 1991

RE: **B4-4**
Project # 0000-00-00-0000
Lab ID: **9110G393-004**
Sample Date: 10/23/91
Date Received: 10/25/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	82.0	%	0.10

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday October 31st, 1991

RE: **B4-5**
Project # 0000-00-00-0000
Lab ID: **9110G393-005**
Sample Date: 10/23/91
Date Received: 10/25/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	79.1	%	0.10

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday October 31st, 1991

RE: **B8-2**
Project # 0000-00-00-0000
Lab ID: **9110G393-006**
Sample Date: 10/23/91
Date Received: 10/25/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	79.6	%	0.10

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday October 31st, 1991

RE: **B8-5**
Project # 0000-00-00-0000
Lab ID: **9110G393-007**
Sample Date: 10/23/91
Date Received: 10/25/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	79.4	%	0.10

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-[illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday October 31st, 1991

Project # 0000-00-00-0000
Lab Batch: **9110G393**

Inorganic Method Blank Data Report

Sample	Lab ID	Parameter	Result		Units	Reporting Limit
Blank 1	91GTS416-MB1	% Solids	0.10	u	%	0.10

WESTON

Roy F. Weston, Inc. - Gulf Coast Laboratories
VOA ANALYTICAL DATA PACKAGE FOR
Canonie Environmental

LABORATORY CHRONICLE
DATE RECEIVED: 10/25/91 RFW LOT # :9110G393

CLIENT ID	RFW #		MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
B3-4	001		S	91GVC344	10/23/91	N/A	11/05/91
B3-5	002		S	91GVC344	10/23/91	N/A	11/05/91
B3-5	002	D1	S	91GVC344	10/23/91	N/A	11/05/91
B3-6	003		S	91GVC343	10/23/91	N/A	11/05/91
B3-6	003	D2	S	91GVC345	10/23/91	N/A	11/06/91
B4-4	004		S	91GVC344	10/23/91	N/A	11/06/91
B4-4	004	D1	S	91GVC344	10/23/91	N/A	11/06/91
B4-5	005		S	91GVC343	10/23/91	N/A	11/05/91
B4-5	005	D1	S	91GVC344	10/23/91	N/A	11/06/91
B8-2	006		S	91GVC343	10/23/91	N/A	11/06/91
B8-2	006	D1	S	91GVC344	10/23/91	N/A	11/06/91
B8-5	007		S	91GVC343	10/23/91	N/A	11/05/91
B8-5	007	D1	S	91GVC344	10/23/91	N/A	11/06/91
LAB QC:							
VBLK	MB1		S	91GVC344	N/A	N/A	11/05/91
VBLK	MB1	BS	S	91GVC344	N/A	N/A	11/06/91
VBLK	MB1		S	91GVC343	N/A	N/A	11/05/91
VBLK	MB1	BS	S	91GVC343	N/A	N/A	11/05/91
VBLK	MB1		S	91GVC345	N/A	N/A	11/06/91
VBLK	MB1	BS	S	91GVC345	N/A	N/A	11/06/91

SIGNATURE Gary A. Kazinski DATE 11-21-91

WESTON-GULF COAST LABORATORIES INC
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) [illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B3-4**
Project # 0000-00-00-0000
Lab ID: **9110G393-001**
Sample Date: 10/23/91
Date Received: 10/25/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	110	6	
Chloromethane	BDL	13	U
Trichlorotrifluoroethane	2	13	J
1,1,1-Trichloroethane	4	6	J
Trichloroethene	39	6	
Tetrahydrofuran	36	6	
Tetrachloroethene	4	6	J
Acetone	41	13	B

WESTON-GULF COAST LABORATORIES, INC
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 722-

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B3-5**
Project # 0000-00-00-0000
Lab ID: **9110G393-002**
Sample Date: 10/23/91
Date Received: 10/25/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	E	31	
Chloromethane	BDL	62	U
Trichlorotrifluoroethane	BDL	62	U
1,1,1-Trichloroethane	E	31	
Trichloroethene	E	31	
Tetrahydrofuran	370	31	
Tetrachloroethene	E	31	
Acetone	BDL	62	U

WESTON-GULF COAST LABORATORIES, INC
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-[illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B3-5**
Project # 0000-00-00-0000
Lab ID: **9110G393-002 DL**
Sample Date: 10/23/91
Date Received: 10/25/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	1200	310	
1,1,1-Trichloroethane	310	310	
Trichloroethene	5600	310	
Tetrachloroethene	1500	310	

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-[illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B3-6**
Project # 0000-00-00-0000
Lab ID: **9110G393-003**
Sample Date: 10/23/91
Date Received: 10/25/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	E	6	
Chloromethane	BDL	13	U
Trichlorotrifluoroethane	170	13	
1,1,1-Trichloroethane	E	6	
Trichloroethene	E	6	
Tetrahydrofuran	86	6	
Tetrachloroethene	E	6	
Acetone	110	13	B

WESTON-GULF COAST LABORATORIES, INC
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B3-6**
Project # 0000-00-00-0000
Lab ID: **9110G393-003 DL**
Sample Date: 10/23/91
Date Received: 10/25/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	6800	320	
1,1,1-Trichloroethane	11000	320	
Trichloroethene	13000	320	
Tetrachloroethene	8900	320	

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B4-4**
Project # 0000-00-00-0000
Lab ID: **9110G393-004**
Sample Date: 10/23/91
Date Received: 10/25/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	E	6	
Chloromethane	BDL	12	U
Trichlorotrifluoroethane	BDL	12	U
1,1,1-Trichloroethane	2	6	J
Trichloroethene	39	6	
Tetrahydrofuran	200	6	
Tetrachloroethene	4	6	J
Acetone	83	12	B

WESTON-GULF COAST LABORATORIES, NC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) [illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B4-4**
Project # 0000-00-00-0000
Lab ID: **9110G393-004 DL**
Sample Date: 10/23/91
Date Received: 10/25/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	410	61	

WESTON-GULF COAST LABORATORIES, INC
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7561

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B4-5**
Project # 0000-00-00-0000
Lab ID: **9110G393-005**
Sample Date: 10/23/91
Date Received: 10/25/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	29	6	
Chloromethane	BDL	13	U
Trichlorotrifluoroethane	BDL	13	U
1,1,1-Trichloroethane	10	6	
Trichloroethene	62	6	
Tetrahydrofuran	26	6	
Tetrachloroethene	BDL	6	U
Acetone	E	13	

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7[illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B4-5**
Project # 0000-00-00-0000
Lab ID: **9110G393-005 DL**
Sample Date: 10/23/91
Date Received: 10/25/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Acetone	390	25	B

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7501

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B8-2**
Project # 0000-00-00-0000
Lab ID: **9110G393-006**
Sample Date: 10/23/91
Date Received: 10/25/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	E	130	
Chloromethane	BDL	250	U
Trichlorotrifluoroethane	BDL	250	U
1,1,1-Trichloroethane	BDL	130	U
Trichloroethene	BDL	130	U
Tetrahydrofuran	E	130	
Tetrachloroethene	BDL	130	U
Acetone	BDL	250	U

WESTON-GULF COAST LABORATORIES, INC
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B8-2**
Project # 0000-00-00-0000
Lab ID: **9110G393-006 DL**
Sample Date: 10/23/91
Date Received: 10/25/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	6900	1300	
Tetrahydrofuran	16000	1300	

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7[illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B8-5**
Project # 0000-00-00-0000
Lab ID: **9110G393-007**
Sample Date: 10/23/91
Date Received: 10/25/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	850	63	
Chloromethane	BDL	130	U
Trichlorotrifluoroethane	430	130	
1,1,1-Trichloroethane	BDL	63	U
Trichloroethene	E	63	
Tetrahydrofuran	2400	63	
Tetrachloroethene	E	63	
Acetone	430	130	B

WESTON-GULF COAST LABORATORIES, INC
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) [illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B8-5**
Project # 0000-00-00-0000
Lab ID: **9110G393-007 DL**
Sample Date: 10/23/91
Date Received: 10/25/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Trichloroethene	13000	320	
Tetrachloroethene	4700	320	

	Cust ID:	B3-4	B3-5	B3-5	B3-6	B3-6	B4-4
Sample Information	RFW#:	001	002	002 DL	003	003 DL	004
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	5.00	50.0	1.00	50.0	1.00
	Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Surrogate Recovery	Toluene-d8	108 %	102 %	105 %	101 %	107 %	114 %
	Bromofluorobenzene	91 %	91 %	100 %	83 %	110 %	90 %
	1,2-Dichloroethane-d4	99 %	96 %	106 %	86 %	113 %	102 %
Toluene		110	E	1200	E	6800	E
Chloromethane		13 U	62 U	NA	13 U	NA	12 U
Trichlorotrifluoroethane		2 J	62 U	NA	170	NA	12 U
1,1,1-Trichloroethane		4 J	E	310	E	11000	2 J
Trichloroethene		39	E	5600	E	13000	39
Tetrahydrofuran		36	370	NA	86	NA	200
Tetrachloroethene		4 J	E	1500	E	8900	4 J
Acetone		41 B	62 U	NA	110 B	NA	83 B

*= Outside of EPA CLP QC limits.

	Cust ID:	B4-4	B4-5	B4-5	B8-2	B8-2	B8-5
Sample Information	RFW#:	004 DL	005	005 DL	006	006 DL	007
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	10.0	1.00	2.00	20.0	200	10.0
	Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Surrogate Recovery	Toluene-d8	104 %	116 %	112 %	106 %	104 %	98 %
	Bromofluorobenzene	96 %	85 %	87 %	86 %	99 %	92 %
	1,2-Dichloroethane-d4	101 %	91 %	98 %	176 * %	104 %	101 %
Toluene		410	29	NA	E	6900	850
Chloromethane		NA	13 U	NA	250 U	NA	130 U
Trichlorotrifluoroethane		NA	13 U	NA	250 U	NA	430
1,1,1-Trichloroethane		NA	10	NA	130 U	NA	63 U
Trichloroethene		NA	62	NA	130 U	NA	E
Tetrahydrofuran		NA	26	NA	E	16000	2400
Tetrachloroethene		NA	6 U	NA	130 U	NA	E
Acetone		NA	E	390 B	250 U	NA	430 B

*= Outside of EPA CLP QC limits.

	Cust ID:	B8-5	VBLK	VBLK BS	VBLK	VBLK BS	VBLK
Sample Information	RFW#:	007 DL	91GVC344-MB1	91GVC344-MB1	91GVC343-MB1	91GVC343-MB1	91GVC345-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	50.0	1.00	1.00	1.00	1.00	1.00
	Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Surrogate Recovery	Toluene-d8	105 %	101 %	100 %	97 %	96 %	97 %
	Bromofluorobenzene	105 %	96 %	102 %	101 %	101 %	97 %
	1,2-Dichloroethane-d4	105 %	96 %	104 %	100 %	102 %	97 %
Toluene		NA	5 U	115 %	5 U	96 %	5 U
Chloromethane		NA	10 U	10 U	10 U	10 U	10 U
Trichlorotrifluoroethane		NA	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane		NA	5 U	5 U	5 U	5 U	5 U
Trichloroethene		13000	5 U	122 %	5 U	135 %	5 U
Tetrahydrofuran		NA	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene		4700	5 U	5 U	5 U	5 U	5 U
Acetone		NA	27	13 B	21	12 B	11

*= Outside of EPA CLP QC limits.

	Cust ID:	**VBLK BS**
Sample Information	RFW#:	**91GVC345-MB1**
	Matrix:	SOIL
	D.F.:	1.00
	Units:	ug/Kg

Surrogate Recovery	Toluene-d8	110	%
	Bromofluorobenzene	109	%
	1,2-Dichloroethane-d4	106	%
Toluene		103	%
Chloromethane		10	U
Trichlorotrifluoroethane		10	U
1,1,1-Trichloroethane		5	U
Trichloroethene		36 *	%
Tetrahydrofuran		5	U
Tetrachloroethene		5	U
Acetone		12	B

*= Outside of EPA CLP QC limits.

WESTON

Roy F. Weston, Inc. - Gulf Coast Laboratories
BNA ANALYTICAL DATA PACKAGE FOR
Canonie Environmental

LABORATORY CHRONICLE
DATE RECEIVED: 10/25/91 RFW LOT # :9110G393

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
B3-4	001	S	91GB0485	10/23/91	10/29/91	11/07/91
B3-5	002	S	91GB0485	10/23/91	10/29/91	11/07/91
B3-5	002 MS	S	91GB0485	10/23/91	10/29/91	11/07/91
B3-5	002 MSD	S	91GB0485	10/23/91	10/29/91	11/07/91
B3-6	003	S	91GB0485	10/23/91	10/29/91	11/07/91
B4-4	004	S	91GB0485	10/23/91	10/29/91	11/07/91
B4-4	004 01	S	91GB0485	10/23/91	10/29/91	11/14/91
B4-5	005	S	91GB0485	10/23/91	10/29/91	11/07/91
B8-2	006	S	91GB0485	10/23/91	10/29/91	11/07/91
B8-5	007	S	91GB0485	10/23/91	10/29/91	11/08/91
LAB QC:						
SBLK	MB1	S	91GB0485	N/A	10/29/91	11/07/91
.K	MB1 BS	S	91GB0485	N/A	10/29/91	11/07/91
ɔɒLK	MB1 BSD	S	91GB0485	N/A	10/29/91	11/07/91

SIGNATURE Jeff A. Kazinski DATE 11-15-91

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-[illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B3-4**
Project # 0000-00-00-0000
Lab ID: **9110G393-001**
Sample Date: 10/23/91
Date Received: 10/25/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	BDL	420	U
3-Picoline	1100	420	
N,N-Dimethylacetamide	BDL	420	U
1-Methyl-2-pyrrolidinone	BDL	420	U

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B3-5**
Project # 0000-00-00-0000
Lab ID: **9110G393-002**
Sample Date: 10/23/91
Date Received: 10/25/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	BDL	410	U
3-Picoline	630	410	
N,N-Dimethylacetamide	BDL	410	U
1-Methyl-2-pyrrolidinone	BDL	410	U

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B3-6**
Project # 0000-00-00-0000
Lab ID: **9110G393-003**
Sample Date: 10/23/91
Date Received: 10/25/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	BDL	420	U
3-Picoline	1800	420	
N,N-Dimethylacetamide	140	420	J
1-Methyl-2-pyrrolidinone	BDL	420	U

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7833

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B4-4**
Project # 0000-00-00-0000
Lab ID: **9110G393-004**
Sample Date: 10/23/91
Date Received: 10/25/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	BDL	400	U
3-Picoline	E	400	
N,N-Dimethylacetamide	BDL	400	U
1-Methyl-2-pyrrolidinone	BDL	400	U

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2417 Bond St., University Park, Illinois 60466
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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B4-4**
Project # 0000-00-00-0000
Lab ID: **9110G393-004 DL**
Sample Date: 10/23/91
Date Received: 10/25/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
3-Picoline	11000	810	

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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B4-5**
Project # 0000-00-00-0000
Lab ID: **9110G393-005**
Sample Date: 10/23/91
Date Received: 10/25/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	BDL	420	U
3-Picoline	750	420	
N,N-Dimethylacetamide	BDL	420	U
1-Methyl-2-pyrrolidinone	BDL	420	U

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B8-2**
Project # 0000-00-00-0000
Lab ID: **9110G393-006**
Sample Date: 10/23/91
Date Received: 10/25/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	BDL	420	U
3-Picoline	4200	420	
N,N-Dimethylacetamide	BDL	420	U
1-Methyl-2-pyrrolidinone	BDL	420	U

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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B8-5**
Project # 0000-00-00-0000
Lab ID: **9110G393-007**
Sample Date: 10/23/91
Date Received: 10/25/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	BDL	4200	U
3-Picoline	BDL	4200	U
N,N-Dimethylacetamide	BDL	4200	U
1-Methyl-2-pyrrolidinone	BDL	4200	U

	Cust ID:	B3-4		B3-5		B3-5		B3-5		B3-6		B4-4	
Sample Information	RFW#:	001		002		002 MS		002 MSD		003		004	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	D.F.:	1.00		1.00		1.00		1.00		1.00		1.00	
	Units:	UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
Surrogate Recovery	Nitrobenzene-d5	69	%	55	%	63	%	57	%	72	%	70	%
	2-Fluorobiphenyl	71	%	61	%	71	%	61	%	72	%	73	%
	Terphenyl-d14	95	%	73	%	92	%	87	%	106	%	95	%
	Phenol-d5	82	%	69	%	77	%	67	%	85	%	93	%
	2-Fluorophenol	78	%	62	%	69	%	64	%	78	%	79	%
	2,4,6-Br3-phenol	94	%	64	%	79	%	72	%	49	%	73	%
Pyridine		420	U	410	U	410	U	410	U	420	U	400	U
3-Picoline		1100		630		410	U	410	U	1800			E
N,N-Dimethylacetamide		420	U	410	U	410	U	410	U	140	J	400	U
1-Methyl-2-pyrrolidinone		420	U	410	U	410	U	410	U	420	U	400	U

	Cust ID:	B4-4		B4-5		B8-2		B8-5		SBLK		SBLK BS	
Sample Information	RFW#:	004 DL		005		006		007		91GB0485-MB1		91GB0485-MB1	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	D.F.:	2.00		1.00		1.00		10.0		1.00		1.00	
	Units:	UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
Surrogate Recovery	Nitrobenzene-d5	D	%	76	%	60	%	55	%	65	%	90	%
	2-Fluorobiphenyl	D	%	76	%	70	%	75	%	64	%	74	%
	Terphenyl-d14	D	%	100	%	101	%	78	%	70	%	95	%
	Phenol-d5	D	%	87	%	89	%	74	%	66	%	83	%
	2-Fluorophenol	D	%	79	%	76	%	70	%	58	%	70	%
	2,4,6-Br3-phenol	D	%	63	%	72	%	57	%	45	%	40	%
Pyridine		NA		420	U	420	U	4200	U	330	U	330	U
3-Picoline		11000		750		4200		4200	U	330	U	330	U
N,N-Dimethylacetamide		NA		420	U	420	U	4200	U	330	U	330	U
1-Methyl-2-pyrrolidinone		NA		420	U	420	U	4200	U	330	U	330	U

*= Outside of EPA CLP QC limits.

Cust ID: **SBLK BSD**

Sample Information

RFW#: **91GB0485-MB1**
Matrix: SOIL
D.F.: 1.00
Units: UG/KG

Surrogate Recovery	Nitrobenzene-d5	90	%
	2-Fluorobiphenyl	74	%
	Terphenyl-d14	98	%
	Phenol-d5	87	%
	2-Fluorophenol	80	%
	2,4,6-Br3-phenol	52	%
Pyridine		330	U
3-Picoline		330	U
N,N-Dimethylacetamide		330	U
1-Methyl-2-pyrrolidinone		330	U

*= Outside of EPA CLP QC limits.

Roy F. Weston, Inc. - Gulf Coast Laboratories
INORGANIC ANALYTICAL DATA PACKAGE FOR
Canonie Environmental

LABORATORY CHRONICLE
DATE RECEIVED: 10/28/91 RFW LOT # :9110G438

CLIENT ID /ANALYSIS	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
MW-1/3						
% SOLIDS	001	S	91GTS422	10/24/91	10/31/91	10/31/91
MW-1/4						
% SOLIDS	002	S	91GTS422	10/24/91	10/31/91	10/31/91
B5-2						
% SOLIDS	003	S	91GTS422	10/24/91	10/31/91	10/31/91
B5-3						
SOLIDS	004	S	91GTS422	10/24/91	10/31/91	10/31/91
B5-4						
% SOLIDS	005	S	91GTS422	10/24/91	10/31/91	10/31/91
B5-5						
% SOLIDS	006	S	91GTS422	10/24/91	10/31/91	10/31/91
B5-6						
% SOLIDS	007	S	91GTS422	10/24/91	10/31/91	10/31/91
MW-2/4						
% SOLIDS	008	S	91GTS423	10/24/91	10/31/91	10/31/91
MW-2/6						
% SOLIDS	009	S	91GTS423	10/24/91	10/31/91	10/31/91
LAB QC:						
% SOLIDS	MB1	W	91GTS422	N/A	10/31/91	10/31/91

Roy F. Weston, Inc. - Gulf Coast Laboratories
INORGANIC ANALYTICAL DATA PACKAGE FOR
Canonie Environmental

LABORATORY CHRONICLE
DATE RECEIVED: 10/28/91 RFW LOT # :9110G438

CLIENT ID /ANALYSIS	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
% SOLIDS	MB1	W	91GTS423	N/A	10/31/91	10/31/91

SIGNATURE Donna L Harper DATE 11-5-91

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Tuesday November 5th, 1991

RE: **MW-1/3**
Project # 0000-00-00-0000
Lab ID: **9110G438-001**
Sample Date: 10/24/91
Date Received: 10/28/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	81.5	%	0.10

WESTON-GULF COAST LABORATORIES, INC.
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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Tuesday November 5th, 1991

RE: **MW-1/4**
Project # 0000-00-00-0000
Lab ID: **9110G438-002**
Sample Date: 10/24/91
Date Received: 10/28/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	80.4	%	0.10

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Tuesday November 5th, 1991

RE: **B5-2**
Project # 0000-00-00-0000
Lab ID: **9110G438-003**
Sample Date: 10/24/91
Date Received: 10/28/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	83.1	%	0.10

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Tuesday November 5th, 1991

RE: **B5-3**
Project # 0000-00-00-0000
Lab ID: **9110G438-004**
Sample Date: 10/24/91
Date Received: 10/28/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	81.8	%	0.10

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Tuesday November 5th, 1991

RE: **B5-4**
Project # 0000-00-00-0000
Lab ID: **9110G438-005**
Sample Date: 10/24/91
Date Received: 10/28/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	80.5	%	0.10

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Tuesday November 5th, 1991

RE: **B5-5**
Project # 0000-00-00-0000
Lab ID: **9110G438-006**
Sample Date: 10/24/91
Date Received: 10/28/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	79.2	%	0.10

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Tuesday November 5th, 1991

RE: **B5-6**
Project # 0000-00-00-0000
Lab ID: **9110G438-007**
Sample Date: 10/24/91
Date Received: 10/28/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	79.7	%	0.10

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Tuesday November 5th, 1991

RE: **MW-2/4**
Project # 0000-00-00-0000
Lab ID: **9110G438-008**
Sample Date: 10/24/91
Date Received: 10/28/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	80.7	%	0.10

WESTON-GULF COAST LABORATORIES, INC.
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Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Tuesday November 5th, 1991

RE: **MW-2/6**
Project # 0000-00-00-0000
Lab ID: **9110G438-009**
Sample Date: 10/24/91
Date Received: 10/28/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	80.9	%	0.10

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Tuesday November 5th, 1991

Project # 0000-00-00-0000
Lab Batch: **9110G438**

Inorganic Method Blank Data Report

Sample	Lab ID	Parameter	Result		Units	Reporting Limit
Blank 1	91GTS422-MB1	% Solids	0.10	u	%	0.10
Blank 1	91GTS423-MB1	% Solids	0.10	u	%	0.10

Roy F. Weston, Inc. - Gulf Coast Laboratories
VOA ANALYTICAL DATA PACKAGE FOR
Canonie Environmental

LABORATORY CHRONICLE
DATE RECEIVED: 10/28/91

RFW LOT # :9110G438

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
MW-1/3	001	S	91GVC346	10/24/91	N/A	11/06/91
MW-1/4	002	S	91GVC345	10/24/91	N/A	11/06/91
MW-1/4	002 MS	S	91GVC345	10/24/91	N/A	11/06/91
MW-1/4	002 MSD	S	91GVC345	10/24/91	N/A	11/06/91
B5-2	003	S	91GVC345	10/24/91	N/A	11/06/91
B5-2	003 D1	S	91GVC346	10/24/91	N/A	11/06/91
B5-3	004	S	91GVC345	10/24/91	N/A	11/06/91
B5-3	004 D1	S	91GVC346	10/24/91	N/A	11/06/91
B5-3	004 D2	S	91GVC348	10/24/91	N/A	11/07/91
B5-3	004 D3	S	91GVC350	10/24/91	N/A	11/10/91
B5-4	005	S	91GVC345	10/24/91	N/A	11/06/91
B5-4	005 D1	S	91GVC346	10/24/91	N/A	11/06/91
B5-4	005 D2	S	91GVC350	10/24/91	N/A	11/10/91
B5-5	006	S	91GVC345	10/24/91	N/A	11/06/91
B5-5	006 D1	S	91GVC346	10/24/91	N/A	11/07/91
5	006 D2	S	91GVC350	10/24/91	N/A	11/10/91
B5-5	006 D3	S	91GVC354	10/24/91	N/A	11/13/91
B5-6	007	S	91GVC345	10/24/91	N/A	11/06/91
B5-6	007 D1	S	91GVC350	10/24/91	N/A	11/10/91
B5-6	007 D2	S	91GVB390	10/24/91	N/A	11/12/91
MW-2/4	008	S	91GVC345	10/24/91	N/A	11/06/91
MW-2/4	008 D1	S	91GVC346	10/24/91	N/A	11/07/91
MW-2/6	009	S	91GVC345	10/24/91	N/A	11/06/91
MW-2/6	009 D1	S	91GVC346	10/24/91	N/A	11/07/91
LAB QC:						
VBLK	MB1	S	91GVC346	N/A	N/A	11/06/91
VBLK	MB1 BS	S	91GVC346	N/A	N/A	11/07/91
VBLK	MB1	S	91GVC345	N/A	N/A	11/06/91
VBLK	MB1 BS	S	91GVC345	N/A	N/A	11/06/91
VBLK	MB1	S	91GVC348	N/A	N/A	11/07/91
VBLK	MB1 BS	S	91GVC348	N/A	N/A	11/08/91
VBLK	MB1	S	91GVC350	N/A	N/A	11/10/91
VBLK	MB1 BS	S	91GVC350	N/A	N/A	11/11/91
VBLK	MB1	S	91GVC354	N/A	N/A	11/13/91
VBLK	MB1 BS	S	91GVC354	N/A	N/A	11/13/91
VBLK	MB1	S	91GVB390	N/A	N/A	11/12/91
BLK	MB1 BS	S	91GVB390	N/A	N/A	11/12/91

SIGNATURE Jeff A. Kazmuski DATE 11-21-91

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **MW-1/3**
Project # 0000-00-00-0000
Lab ID: **9110G438-001**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	540	62	
Chloromethane	BDL	120	U
Trichlorotrifluoroethane	BDL	120	U
1,1,1-Trichloroethane	38	62	J
Trichloroethene	600	62	
Tetrahydrofuran	360	62	
Tetrachloroethene	BDL	62	U
Acetone	57	120	JB

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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **MW-1/4**
Project # 0000-00-00-0000
Lab ID: **9110G438-002**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	2300	120	
Chloromethane	BDL	250	U
Trichlorotrifluoroethane	BDL	250	U
1,1,1-Trichloroethane	BDL	120	U
Trichloroethene	800	120	
Tetrahydrofuran	310	120	
Tetrachloroethene	BDL	120	U
Acetone	370	250	B

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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-2**
Project # 0000-00-00-0000
Lab ID: **9110G438-003**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	E	300	
Chloromethane	BDL	600	U
Trichlorotrifluoroethane	BDL	600	U
1,1,1-Trichloroethane	700	300	
Trichloroethene	9900	300	
Tetrahydrofuran	63	300	J
Tetrachloroethene	1000	300	
Acetone	2200	600	B

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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-2**
Project # 0000-00-00-0000
Lab ID: **9110G438-003 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	100000	3000	

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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-3**
Project # 0000-00-00-0000
Lab ID: **9110G438-004**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	E	120	
Chloromethane	BDL	240	U
Trichlorotrifluoroethane	620	240	
1,1,1-Trichloroethane	E	120	
Trichloroethene	E	120	
Tetrahydrofuran	BDL	120	U
Tetrachloroethene	4500	120	
Acetone	E	240	

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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-3**
Project # 0000-00-00-0000
Lab ID: **9110G438-004 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	E	3000	
1,1,1-Trichloroethane	E	3000	
Trichloroethene	E	3000	
Acetone	22000	6100	B

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2417 Bond St., University Park, Illinois 60466
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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-3**
Project # 0000-00-00-0000
Lab ID: **9110G438-004 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	130000	6100	
1,1,1-Trichloroethane	140000	6100	
Trichloroethene	E	6100	

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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-3**
Project # 0000-00-00-0000
Lab ID: **9110G438-004 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Trichloroethene	510000	12000	

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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-4**
Project # 0000-00-00-0000
Lab ID: **9110G438-005**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	E	310	
Chloromethane	BDL	620	U
Trichlorotrifluoroethane	6300	620	
1,1,1-Trichloroethane	E	310	
Trichloroethene	E	310	
Tetrahydrofuran	BDL	310	U
Tetrachloroethene	8900	310	
Acetone	E	620	

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2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-[illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-4**
Project # 0000-00-00-0000
Lab ID: **9110G438-005 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	E	3100	
1,1,1-Trichloroethane	120000	3100	
Trichloroethene	E	3100	
Acetone	13000	6200	B

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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-4**
Project # 0000-00-00-0000
Lab ID: **9110G438-005 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	520000	12000	
Trichloroethene	380000	12000	

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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-5**
Project # 0000-00-00-0000
Lab ID: **9110G438-006**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	E	130	
Chloromethane	BDL	250	U
Trichlorotrifluoroethane	280	250	
1,I,1-Trichloroethane	E	130	
Trichloroethene	E	130	
Tetrahydrofuran	2500	130	
Tetrachloroethene	2800	130	
Acetone	E	250	

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Phones: (708) 534-5200 (219) 885-7077 (815) 723-[illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-5**
Project # 0000-00-00-0000
Lab ID: **9110G438-006 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	E	3200	
1,1,1-Trichloroethane	E	3200	
Trichloroethene	E	3200	
Acetone	39000	6300	B

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2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) [illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-5**
Project # 0000-00-00-0000
Lab ID: **9110G438-006 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	82000	6300	
1,1,1-Trichloroethane	220000	6300	
Trichloroethene	E	6300	

WESTON-GULF COAST LABORATORIES, INC
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7[illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-5**
Project # 0000-00-00-0000
Lab ID: **9110G438-006 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Trichloroethene	740000	32000	

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2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) [illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-6**
Project # 0000-00-00-0000
Lab ID: **9110G438-007**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	E	120	
Chloromethane	BDL	250	U
Trichlorotrifluoroethane	2300	250	
1,1,1-Trichloroethane	E	120	
Trichloroethene	E	120	
Tetrahydrofuran	740	120	
Tetrachloroethene	BDL	120	U
Acetone	BDL	250	U

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-[illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-6**
Project # 0000-00-00-0000
Lab ID: **9110G438-007 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	320000	12000	
1,1,1-Trichloroethane	420000	12000	
Trichloroethene	E	12000	

WESTON-GULF COAST LABORATORIES, INC
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 727-

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-6**
Project # 0000-00-00-0000
Lab ID: **9110G438-007 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Trichloroethene	530000	31000	

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2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 722

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **MW-2/4**
Project # 0000-00-00-0000
Lab ID: **9110G438-008**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	3500	120	
Chloromethane	BDL	250	U
Trichlorotrifluoroethane	BDL	250	U
1,1,1-Trichloroethane	460	120	
Trichloroethene	E	120	
Tetrahydrofuran	1400	120	
Tetrachloroethene	610	120	
Acetone	3400	250	B

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2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723 [illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **MW-2/4**
Project # 0000-00-00-0000
Lab ID: **9110G438-008 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Trichloroethene	8400	310	

WESTON-GULF COAST LABORATORIES, INC.
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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **MW-2/6**
Project # 0000-00-00-0000
Lab ID: **9110G438-009**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	2300	120	
Chloromethane	BDL	250	U
Trichlorotrifluoroethane	BDL	250	U
1,1,1-Trichloroethane	520	120	
Trichloroethene	E	120	
Tetrahydrofuran	960	120	
Tetrachloroethene	400	120	
Acetone	850	250	B

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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
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Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **MW-2/6**
Project # 0000-00-00-0000
Lab ID: **9110G438-009 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Trichloroethene	5200	310	

Roy F. Weston, Inc. - Gulf Coast Laboratories
VOLATILES BY GC/MS, SPECIAL LIST
Report Date: 11/19/91 21:34

RFW Batch Number: 9110G438 Client: Canonie Environmental Work Order: 0000-00-00-0000 Page: 1a

	Cust ID:	MW-1/3	MW-1/4	MW-1/4	MW-1/4	B5-2	B5-2
Sample Information	RFW#:	001	002	002 MS	002 MSD	003	003 DL
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	10.0	20.0	20.0	20.0	50.0	500
	Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Surrogate Recovery	Toluene-d8	102 %	104 %	112 %	112 %	109 %	96 %
	Bromofluorobenzene	92 %	102 %	105 %	108 %	108 %	96 %
	1,2-Dichloroethane-d4	97 %	102 %	363 * %	162 * %	101 %	96 %
Toluene		540	2300	91 %	63 %	E	100000
Chloromethane		120 U	250 U	250 U	250 U	600 U	NA
Trichlorotrifluoroethane		120 U	250 U	250 U	250 U	600 U	NA
1,1,1-Trichloroethane		38 J	120 U	120 U	120 U	700	NA
Trichloroethene		600	800	99 %	229 * %	9900	NA
Tetrahydrofuran		360	310	1200	1100	63 J	NA
Tetrachloroethene		62 U	120 U	120 U	120 U	1000	NA
Acetone		57 JB	370 B	1000 B	680 B	2200 B	NA

*= Outside of EPA CLP QC limits.

	Cust ID:	B5-3	B5-3	B5-3	B5-3	B5-4	B5-4
Sample Information	RFW#:	004	004 DL	004 DL	004 DL	005	005 DL
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	20.0	500	1000	2000	50.0	500
	Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Surrogate Recovery	Toluene-d8	108 %	101 %	97 %	98 %	116 %	106 %
	Bromofluorobenzene	119 %	96 %	100 %	99 %	125 * %	101 %
	1,2-Dichloroethane-d4	102 %	99 %	99 %	100 %	102 %	98 %
Toluene		E	E	130000	NA	E	E
Chloromethane		240 U	NA	NA	NA	620 U	NA
Trichlorotrifluoroethane		620	NA	NA	NA	6300	NA
1,1,1-Trichloroethane		E	E	140000	NA	E	120000
Trichloroethene		E	E	E	510000	E	E
Tetrahydrofuran		120 U	NA	NA	NA	310 U	NA
Tetrachloroethene		4500	NA	NA	NA	8900	NA
Acetone		E	22000 B	NA	NA	E	13000 B

*= Outside of EPA CLP QC limits.

	Cust ID:	B5-4	B5-5	B5-5	B5-5	B5-5	B5-6
Sample Information	RFW#:	005 DL	006	006 DL	006 DL	006 DL	007
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	2000	20.0	500	1000	5000	20.0
	Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Surrogate Recovery	Toluene-d8	99 %	114 %	100 %	99 %	101 %	149 * %
	Bromofluorobenzene	96 %	62 * %	94 %	99 %	98 %	88 %
	1,2-Dichloroethane-d4	99 %	315 * %	98 %	101 %	101 %	278 * %
Toluene		520000	E	E	82000	NA	E
Chloromethane		NA	250 U	NA	NA	NA	250 U
Trichlorotrifluoroethane		NA	280	NA	NA	NA	2300
1,1,1-Trichloroethane		NA	E	E	220000	NA	E
Trichloroethene		380000	E	E	E	740000	E
Tetrahydrofuran		NA	2500	NA	NA	NA	740
Tetrachloroethene		NA	2800	NA	NA	NA	120 U
Acetone		NA	E	39000 B	NA	NA	250 U

*= Outside of EPA CLP QC limits.

	Cust ID:	B5-6	B5-6	MW-2/4	MW-2/4	MW-2/6	MW-2/6
Sample Information	RFW#:	007 DL	007 DL	008	008 DL	009	009 DL
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	2000	5000	20.0	50.0	20.0	50.0
	Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Surrogate Recovery	Toluene-d8	95 %	99 %	111 %	99 %	105 %	100 %
	Bromofluorobenzene	98 %	105 %	102 %	96 %	95 %	95 %
	1,2-Dichloroethane-d4	99 %	106 %	137 * %	99 %	148 * %	98 %
Toluene		320000	NA	3500	NA	2300	NA
Chloromethane		NA	NA	250 U	NA	250 U	NA
Trichlorotrifluoroethane		NA	NA	250 U	NA	250 U	NA
1,1,1-Trichloroethane		420000	NA	460	NA	520	NA
Trichloroethene		E	530000	E	8400	E	5200
Tetrahydrofuran		NA	NA	1400	NA	960	NA
Tetrachloroethene		NA	NA	610	NA	400	NA
Acetone		NA	NA	3400 B	NA	850 B	NA

*= Outside of EPA CLP QC limits.

Sample Information	Cust ID:	VBLK	VBLK BS	VBLK	VBLK BS	VBLK	VBLK BS
	RFW#:	91GVC346-MB1	91GVC346-MB1	91GVC345-MB1	91GVC345-MB1	91GVC348-MB1	91GVC348-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Surrogate Recovery	Toluene-d8	97 %	103 %	97 %	110 %	98 %	103 %
	Bromofluorobenzene	96 %	95 %	97 %	109 %	97 %	99 %
	1,2-Dichloroethane-d4	96 %	99 %	97 %	106 %	99 %	98 %
Toluene		5 U	90 %	5 U	103 %	5 U	127 %
Chloromethane		10 U	10 U	10 U	10 U	10 U	10 U
Trichlorotrifluoroethane		10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane		5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene		5 U	70 %	5 U	36 * %	5 U	97 %
Tetrahydrofuran		5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene		5 U	5 U	5 U	5 U	5 U	5 U
Acetone		9 J	3 JB	11	12 B	18	6 JB

*= Outside of EPA CLP QC limits.

	Cust ID:	VBLK	VBLK BS	VBLK	VBLK BS	VBLK	VBLK BS
Sample Information	RFW#:	91GVC350-MB1	91GVC350-MB1	91GVC354-MB1	91GVC354-MB1	91GVB390-MB1	91GVB390-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Surrogate Recovery	Toluene-d8	100 %	101 %	97 %	101 %	100 %	98 %
	Bromofluorobenzene	98 %	102 %	99 %	99 %	97 %	102 %
	1,2-Dichloroethane-d4	96 %	104 %	100 %	214 * %	100 %	103 %
Toluene		5 U	88 %	5 U	91 %	5 U	96 %
Chloromethane		10 U	10 U	10 U	10 U	10 U	10 U
Trichlorotrifluoroethane		10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane		5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene		5 U	88 %	5 U	90 %	5 U	83 %
Tetrahydrofuran		5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene		5 U	5 U	5 U	5 U	5 U	5 U
Acetone		10 U	10 U	15	13 B	6 J	7 JB

*= Outside of EPA CLP QC limits.

Roy F. Weston, Inc. - Gulf Coast Laboratories
BNA ANALYTICAL DATA PACKAGE FOR
Canonie Environmental

LABORATORY CHRONICLE
DATE RECEIVED: 10/28/91

RFW LOT # :9110G438

CLIENT ID	RFW #		MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
MW-1/3	001		S	91GB0485	10/24/91	10/29/91	11/08/91
MW-1/4	002		S	91GB0485	10/24/91	10/29/91	11/08/91
B5-2	003		S	91GB0485	10/24/91	10/29/91	11/08/91
B5-2	003	01	S	91GB0485	10/24/91	10/29/91	11/14/91
B5-3	004		S	91GB0485	10/24/91	10/29/91	11/08/91
B5-3	004	01	S	91GB0485	10/24/91	10/29/91	11/08/91
B5-4	005		S	91GB0485	10/24/91	10/29/91	11/08/91
B5-4	005	01	S	91GB0485	10/24/91	10/29/91	11/12/91
B5-4	005	02	S	91GB0485	10/24/91	10/29/91	11/14/91
B5-4	005	03	S	91GB0485	10/24/91	10/29/91	11/13/91
B5-5	006		S	91GB0485	10/24/91	10/29/91	11/08/91
B5-5	006	01	S	91GB0485	10/24/91	10/29/91	11/14/91
B5-5	006	02	S	91GB0485	10/24/91	10/29/91	11/13/91
B5-6	007		S	91GB0485	10/24/91	10/29/91	11/08/91
B5-6	007	01	S	91GB0485	10/24/91	10/29/91	11/12/91
-6	007	02	S	91GB0485	10/24/91	10/29/91	11/14/91
B5-6	007	03	S	91GB0485	10/24/91	10/29/91	11/13/91
MW-2/4	008		S	91GB0485	10/24/91	10/29/91	11/08/91
MW-2/4	008	01	S	91GB0485	10/24/91	10/29/91	11/14/91
MW-2/4	008	02	S	91GB0485	10/24/91	10/29/91	11/13/91
MW-2/6	009		S	91GB0485	10/24/91	10/29/91	11/08/91
MW-2/6	009	01	S	91GB0485	10/24/91	10/29/91	11/14/91
MW-2/6	009	02	S	91GB0485	10/24/91	10/29/91	11/13/91
LAB QC:							
SBLK	MB1		S	91GB0485	N/A	10/29/91	11/07/91
SBLK	MB1 BS		S	91GB0485	N/A	10/29/91	11/07/91
SBLK	MB1 BSD		S	91GB0485	N/A	10/29/91	11/07/91

SIGNATURE M Jaclyn Kennedy DATE 11/15/91

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **MW-1/3**
Project # 0000-00-00-0000
Lab ID: **9110G438-001**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	1800	4100	J
3-Picoline	39000	4100	
N,N-Dimethylacetamide	1500	4100	J
1-Methyl-2-pyrrolidinone	1200	4100	J

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2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7536

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **MW-1/4**
Project # 0000-00-00-0000
Lab ID: **9110G438-002**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	93	410	J
3-Picoline	5400	410	
N,N-Dimethylacetamide	83	410	J
1-Methyl-2-pyrrolidinone	BDL	410	U

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2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7532

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-2**
Project # 0000-00-00-0000
Lab ID: **9110G438-003**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	31000	8000	
3-Picoline	E	8000	
N,N-Dimethylacetamide	1800	8000	J
1-Methyl-2-pyrrolidinone	13000	8000	

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Phones: (708) 534-5200 (219) 885-7077 (815) 723-

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-2**
Project # 0000-00-00-0000
Lab ID: **9110G438-003 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
3-Picoline	330000	20000	

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-[illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-3**
Project # 0000-00-00-0000
Lab ID: **9110G438-004**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	E	4100	
3-Picoline	E	4100	
N,N-Dimethylacetamide	E	4100	
1-Methyl-2-pyrrolidinone	31000	4100	

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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-3**
Project # 0000-00-00-0000
Lab ID: **9110G438-004 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	83000	20000	
3-Picoline	410000	20000	
N,N-Dimethylacetamide	320000	20000	

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2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7751

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-4**
Project # 0000-00-00-0000
Lab ID: **9110G438-005**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	E	8300	
3-Picoline	E	8300	
N,N-Dimethylacetamide	E	8300	
1-Methyl-2-pyrrolidinone	52000	8300	

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2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-[illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-4**
Project # 0000-00-00-0000
Lab ID: **9110G438-005 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	330000	21000	
3-Picoline	E	21000	
N,N-Dimethylacetamide	E	21000	

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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-4**
Project # 0000-00-00-0000
Lab ID: **9110G438-005 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
3-Picoline	1400000	83000	
N,N-Dimethylacetamide	E	83000	

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MANAGERS DESIGNERS CONSULTANTS

WESTON-GULF COAST LABORATORIES, INC
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-13

ANALYTICAL REPORT

To: Canonie Environmental
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-4**
Project # 0000-00-00-0000
Lab ID: **9110G438-005 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
N,N-Dimethylacetamide	3400000	410000	

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2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-[illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-5**
Project # 0000-00-00-0000
Lab ID: **9110G438-006**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	E	8400	
3-Picoline	E	8400	
N,N-Dimethylacetamide	E	8400	
1-Methyl-2-pyrrolidinone	64000	8400	

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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-5**
Project # 0000-00-00-0000
Lab ID: **9110G438-006 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	280000	42000	
3-Picoline	E	42000	
N,N-Dimethylacetamide	E	42000	

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Phones: (708) 534-5200 (219) 885-7077 (815) 723-7531

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-5**
Project # 0000-00-00-0000
Lab ID: **9110G438-006 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
3-Picoline	1300000	420000	
N,N-Dimethylacetamide	5200000	420000	

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Phones: (708) 534-5200 (219) 885-7077 (815) 723-[illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-6**
Project # 0000-00-00-0000
Lab ID: **9110G438-007**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	120000	8300	
3-Picoline	E	8300	
N,N-Dimethylacetamide	E	8300	
1-Methyl-2-pyrrolidinone	E	8300	

WESTON-GULF COAST LABORATORIES, INC.
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Phones: (708) 534-5200 (219) 885-7077 (815) 723-[illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-6**
Project # 0000-00-00-0000
Lab ID: **9110G438-007 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
3-Picoline	E	21000	
N,N-Dimethylacetamide	E	21000	
1-Methyl-2-pyrrolidinone	310000	21000	

WESTON-GULF COAST LABORATORIES, INC.
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Phones: (708) 534-5200 (219) 885-7077 (815) 723-[illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-6**
Project # 0000-00-00-0000
Lab ID: **9110G438-007 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
3-Picoline	660000	42000	
N,N-Dimethylacetamide	E	42000	

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-15

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **B5-6**
Project # 0000-00-00-0000
Lab ID: **9110G438-007 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
N,N-Dimethylacetamide	3000000	420000	

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **MW-2/4**
Project # 0000-00-00-0000
Lab ID: **9110G438-008**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	2500	8200	J
3-Picoline	E	8200	
N,N-Dimethylacetamide	E	8200	
1-Methyl-2-pyrrolidinone	13000	8200	

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7[illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **MW-2/4**
Project # 0000-00-00-0000
Lab ID: **9110G438-008 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
3-Picoline	570000	41000	
N,N-Dimethylacetamide	E	41000	

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7511

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **MW-2/4**
Project # 0000-00-00-0000
Lab ID: **9110G438-008 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
N,N-Dimethylacetamide	2500000	410000	

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) [illegible]

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **MW-2/6**
Project # 0000-00-00-0000
Lab ID: **9110G438-009**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	17000	4100	
3-Picoline	E	4100	
N,N-Dimethylacetamide	E	4100	
1-Methyl-2-pyrrolidinone	17000	4100	

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **MW-2/6**
Project # 0000-00-00-0000
Lab ID: **9110G438-009 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
3-Picoline	310000	21000	
N,N-Dimethylacetamide	E	21000	

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Thursday November 21st, 1991

RE: **MW-2/6**
Project # 0000-00-00-0000
Lab ID: **9110G438-009 DL**
Sample Date: 10/24/91
Date Received: 10/28/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
N,N-Dimethylacetamide	2600000	210000	

	Cust ID:	MW-1/3	MW-1/4	B5-2	B5-2	B5-3	B5-3
Sample Information	RFW#:	001	002	003	003 DL	004	004 DL
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	10.0	1.00	20.0	50.0	10.0	50.0
	Units:	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Surrogate Recovery	Nitrobenzene-d5	55 %	62 %	45 %	D %	57 %	D %
	2-Fluorobiphenyl	79 %	73 %	72 %	D %	74 %	D %
	Terphenyl-d14	134 %	92 %	73 %	D %	77 %	D %
	Phenol-d5	80 %	91 %	65 %	D %	69 %	D %
	2-Fluorophenol	72 %	80 %	54 %	D %	60 %	D %
	2,4,6-Br3-phenol	36 %	49 %	42 %	D %	47 %	D %
Pyridine		1800 J	93 J	31000	NA	E	83000
3-Picoline		39000	5400	E	330000	E	410000
N,N-Dimethylacetamide		1500 J	83 J	1800 J	NA	E	320000
1-Methyl-2-pyrrolidinone		1200 J	410 U	13000	NA	31000	NA

	Cust ID:	B5-4	B5-4	B5-4	B5-4	B5-5	B5-5
Sample Information	RFW#:	005	005 DL	005 DL	005 DL	006	006 DL
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	20.0	50.0	200	1000	20.0	100
	Units:	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Surrogate Recovery	Nitrobenzene-d5	60 %	D %	D %	D %	60 %	D %
	2-Fluorobiphenyl	76 %	D %	D %	D %	76 %	D %
	Terphenyl-d14	80 %	D %	D %	D %	82 %	D %
	Phenol-d5	86 %	D %	D %	D %	93 %	D %
	2-Fluorophenol	86 %	D %	D %	D %	93 %	D %
	2,4,6-Br3-phenol	58 %	D %	D %	D %	57 %	D %
Pyridine		E	330000	NA	NA	E	280000
3-Picoline		E	E	1400000	NA	E	E
N,N-Dimethylacetamide		E	E	E	3400000	E	E
1-Methyl-2-pyrrolidinone		52000	NA	NA	NA	64000	NA

*= Outside of EPA CLP QC limits.

	Cust ID:	B5-5	B5-6	B5-6	B5-6	B5-6	MW-2/4
Sample Information	RFW#:	006 DL	007	007 DL	007 DL	007 DL	008
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1000	20.0	50.0	100	1000	20.0
	Units:	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Surrogate Recovery	Nitrobenzene-d5	D %	D %	D %	D %	D %	57 %
	2-Fluorobiphenyl	D %	D %	D %	D %	D %	78 %
	Terphenyl-d14	D %	D %	D %	D %	D %	70 %
	Phenol-d5	D %	D %	D %	D %	D %	78 %
	2-Fluorophenol	D %	D %	D %	D %	D %	79 %
	2,4,6-Br3-phenol	D %	D %	D %	D %	D %	30 %
Pyridine		NA	120000	NA	NA	NA	2500 J
3-Picoline		1300000 E		E	660000 E	NA	E
N,N-Dimethylacetamide		5200000 E		E	E	3000000	E
1-Methyl-2-pyrrolidinone		NA	E	310000	NA	NA	13000

	Cust ID:	MW-2/4	MW-2/4	MW-2/6	MW-2/6	MW-2/6	SBLK
Sample Information	RFW#:	008 DL	008 DL	009	009 DL	009 DL	91GB0485-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	100	1000	10.0	50.0	500	1.00
	Units:	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Surrogate Recovery	Nitrobenzene-d5	D %	D %	66 %	D %	D %	65 %
	2-Fluorobiphenyl	D %	D %	78 %	D %	D %	64 %
	Terphenyl-d14	D %	D %	79 %	D %	D %	70 %
	Phenol-d5	D %	D %	80 %	D %	D %	66 %
	2-Fluorophenol	D %	D %	81 %	D %	D %	58 %
	2,4,6-Br3-phenol	D %	D %	29 %	D %	D %	45 %
Pyridine		NA	NA	17000	NA	NA	330 U
3-Picoline		570000 E	NA	E	310000 E	NA	330 U
N,N-Dimethylacetamide		E	2500000	E	E	2600000	330 U
1-Methyl-2-pyrrolidinone		NA	NA	17000	NA	NA	330 U

*= Outside of EPA CLP QC limits.

		Cust ID:	SBLK BS		SBLK BSD	
Sample Information		RFW#:	91GB0485-MB1		91GB0485-MB1	
		Matrix:	SOIL		SOIL	
		D.F.:	1.00		1.00	
		Units:	UG/KG		UG/KG	
Surrogate Recovery	Nitrobenzene-d5		90	%	90	%
	2-Fluorobiphenyl		74	%	74	%
	Terphenyl-d14		95	%	98	%
	Phenol-d5		83	%	87	%
	2-Fluorophenol		70	%	80	%
	2,4,6-Br3-phenol		40	%	52	%
Pyridine			330	U	330	U
3-Picoline			330	U	330	U
N,N-Dimethylacetamide			330	U	330	U
1-Methyl-2-pyrrolidinone			330	U	330	U

*= Outside of EPA CLP QC limits.

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Tuesday November 5th, 1991

RE: **B6-5**
Project # 0000-00-00-0000
Lab ID: **9110G458-001**
Sample Date: 10/25/91
Date Received: 10/29/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	78.8	%	0.10

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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Tuesday November 5th, 1991

RE: **B6-3**
Project # 0000-00-00-0000
Lab ID: **9110G458-002**
Sample Date: 10/25/91
Date Received: 10/29/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	80.3	%	0.10

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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Tuesday November 5th, 1991

RE: **MW-4/6**
Project # 0000-00-00-0000
Lab ID: **9110G458-003**
Sample Date: 10/25/91
Date Received: 10/29/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	83.0	%	0.10

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ANALYTICAL REPORT

To: **Canonie Environmental**
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Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Tuesday November 5th, 1991

RE: **MW-4/3**
Project # 0000-00-00-0000
Lab ID: **9110G458-004**
Sample Date: 10/25/91
Date Received: 10/29/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	76.0	%	0.10

WESTON-GULF COAST LABORATORIES, INC.
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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Tuesday November 5th, 1991

Project # 0000-00-00-0000
Lab Batch: **9110G458**

Inorganic Method Blank Data Report

Sample	Lab ID	Parameter	Result		Units	Reporting Limit
Blank 1	91GTS424-MB1	% Solids	0.10	u	%	0.10

WESTON

Roy F. Weston, Inc. - Gulf Coast Laboratories
VOA ANALYTICAL DATA PACKAGE FOR
Canonie Environmental

LABORATORY CHRONICLE
DATE RECEIVED: 10/29/91

RFW LOT # :9110G458

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
B6-5	001	S	91GVC346	10/25/91	N/A	11/07/91
B6-5	001 MS	S	91GVC346	10/25/91	N/A	11/07/91
B6-5	001 MSD	S	91GVC346	10/25/91	N/A	11/07/91
B6-3	002	S	91GVC348	10/25/91	N/A	11/07/91
B6-3	002 D1	S	91GVC346	10/25/91	N/A	11/07/91
MW-4/6	003	S	91GVC348	10/25/91	N/A	11/08/91
MW-4/3	004	S	91GVC348	10/25/91	N/A	11/08/91
LAB QC:						
VBLK	MB1	S	91GVC346	N/A	N/A	11/06/91
VBLK	MB1 BS	S	91GVC346	N/A	N/A	11/07/91
VBLK	MB1	S	91GVC348	N/A	N/A	11/07/91
VBLK	MB1 BS	S	91GVC348	N/A	N/A	11/08/91

SIGNATURE Jeff A. Kozinski DATE 11-22-91

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Friday November 22nd, 1991

RE: **B6-5**
Project # 0000-00-00-0000
Lab ID: **9110G458-001**
Sample Date: 10/25/91
Date Received: 10/29/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	36	32	
Chloromethane	BDL	64	U
Trichlorotrifluoroethane	BDL	64	U
1,1,1-Trichloroethane	BDL	32	U
Trichloroethene	47	32	
Tetrahydrofuran	970	32	
Tetrachloroethene	BDL	32	U
Acetone	48	64	J

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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Friday November 22nd, 1991

RE: **B6-3**
Project # 0000-00-00-0000
Lab ID: **9110G458-002**
Sample Date: 10/25/91
Date Received: 10/29/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	E	120	
Chloromethane	BDL	250	U
Trichlorotrifluoroethane	BDL	250	U
1,1,1-Trichloroethane	BDL	120	U
Trichloroethene	110	120	J
Tetrahydrofuran	3400	120	
Tetrachloroethene	BDL	120	U
Acetone	2200	250	B

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To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Friday November 22nd, 1991

RE: **B6-3**
Project # 0000-00-00-0000
Lab ID: **9110G458-002 DL**
Sample Date: 10/25/91
Date Received: 10/29/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	5700	620	

WESTON
MANAGERS DESIGNERS/CONSULTANTS

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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Friday November 22nd, 1991

RE: **MW-4/6**
Project # 0000-00-00-0000
Lab ID: **9110G458-003**
Sample Date: 10/25/91
Date Received: 10/29/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	31	6	
Chloromethane	BDL	12	U
Trichlorotrifluoroethane	BDL	12	U
1,1,1-Trichloroethane	11	6	
Trichloroethene	55	6	
Tetrahydrofuran	30	6	
Tetrachloroethene	BDL	6	U
Acetone	310	12	

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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Friday November 22nd, 1991

RE: **MW-4/3**
Project # 0000-00-00-0000
Lab ID: **9110G458-004**
Sample Date: 10/25/91
Date Received: 10/29/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	460	66	
Chloromethane	BDL	130	U
Trichlorotrifluoroethane	BDL	130	U
1,1,1-Trichloroethane	27	66	J
Trichloroethene	340	66	
Tetrahydrofuran	1500	66	
Tetrachloroethene	BDL	66	U
Acetone	310	130	B

Roy F. Weston, Inc. - Gulf Coast Laboratories
VOLATILES BY GC/MS, SPECIAL LIST
Report Date: 11/22/91 13:16

RFW Batch Number: 9110G458 Client: Canonie Environmental Work Order: 0000-00-00-0000 Page: 1a

	Cust ID:	B6-5	B6-5	B6-5	B6-3	B6-3	MW-4/6
Sample Information	RFW#:	001	001 MS	001 MSD	002	002 DL	003
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	5.00	5.00	5.00	20.0	100	1.00
	Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Surrogate Recovery	Toluene-d8	104 %	107 %	109 %	103 %	95 %	116 %
	Bromofluorobenzene	91 %	88 %	84 %	93 %	95 %	87 %
	1,2-Dichloroethane-d4	94 %	97 %	95 %	141 * %	95 %	91 %
Toluene		36	76 %	77 %	E	5700	31
Chloromethane		64 U	64 U	64 U	250 U	NA	12 U
Trichlorotrifluoroethane		64 U	64 U	64 U	250 U	NA	12 U
1,1,1-Trichloroethane		32 U	32 U	32 U	120 U	NA	11
Trichloroethene		47	47 * %	48 * %	110 J	NA	55
Tetrahydrofuran		970	2400	1200	3400	NA	30
Tetrachloroethene		32 U	32 U	32 U	120 U	NA	6 U
Acetone		48 J	110 B	56 JB	2200 B	NA	310

*= Outside of EPA CLP QC limits.

	Cust ID:	MW-4/3	VBLK	VBLK BS	VBLK	VBLK BS
Sample Information	RFW#:	004	91GVC346-MB1	91GVC346-MB1	91GVC348-MB1	91GVC348-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	10.0	1.00	1.00	1.00	1.00
	Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Surrogate Recovery	Toluene-d8	115 %	97 %	103 %	98 %	103 %
	Bromofluorobenzene	88 %	96 %	95 %	97 %	99 %
	1,2-Dichloroethane-d4	89 %	96 %	99 %	99 %	98 %
Toluene		460	5 U	90 %	5 U	127 %
Chloromethane		130 U	10 U	10 U	10 U	10 U
Trichlorotrifluoroethane		130 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane		27 J	5 U	5 U	5 U	5 U
Trichloroethene		340	5 U	70 %	5 U	97 %
Tetrahydrofuran		1500	5 U	5 U	5 U	5 U
Tetrachloroethene		66 U	5 U	5 U	5 U	5 U
Acetone		310 B	9 J	3 JB	18	6 JB

*= Outside of EPA CLP QC limits.

Roy F. Weston, Inc. - Gulf Coast Laboratories
BNA ANALYTICAL DATA PACKAGE FOR
Canonie Environmental

LABORATORY CHRONICLE
DATE RECEIVED: 10/29/91 RFW LOT # :9110G458

CLIENT ID	RFW #		MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
B6-5	001		S	91GB0489	10/25/91	10/31/91	11/06/91
B6-5	001	01	S	91GB0489	10/25/91	10/31/91	11/13/91
B6-3	002		S	91GB0489	10/25/91	10/31/91	11/06/91
B6-3	002	01	S	91GB0489	10/25/91	10/31/91	11/13/91
MW-4/6	003		S	91GB0489	10/25/91	10/31/91	11/06/91
MW-4/6	003	01	S	91GB0489	10/25/91	10/31/91	11/08/91
MW-4/3	004		S	91GB0489	10/25/91	10/31/91	11/06/91
MW-4/3	004	01	S	91GB0489	10/25/91	10/31/91	11/08/91
LAB QC:							
SBLK	MB1		S	91GB0489	N/A	10/31/91	11/06/91
SBLK	MB1 BS		S	91GB0489	N/A	10/31/91	11/05/91
SBLK	MB1 BSD		S	91GB0489	N/A	10/31/91	11/06/91

SIGNATURE M/A. Kazinski DATE 11-18-91

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Monday November 18th, 1991

RE: **B6-5**
Project # 0000-00-00-0000
Lab ID: **9110G458-001**
Sample Date: 10/25/91
Date Received: 10/29/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	780	2100	J
2-Picoline	BDL	2100	U
N,N-Dimethylacetamide	E	2100	
1-Methyl-2-pyrrolidinone	8300	2100	

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Attn: **Mr. Terry Ashworth**

Date: Monday November 18th, 1991

RE: **B6-5**
Project # 0000-00-00-0000
Lab ID: **9110G458-001 DL**
Sample Date: 10/25/91
Date Received: 10/29/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
N,N-Dimethylacetamide	590000	100000	

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Attn: **Mr. Terry Ashworth**

Date: Monday November 18th, 1991

RE: **B6-3**
Project # 0000-00-00-0000
Lab ID: **9110G458-002**
Sample Date: 10/25/91
Date Received: 10/29/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	2700	4100	J
2-Picoline	BDL	4100	U
N,N-Dimethylacetamide	E	4100	
1-Methyl-2-pyrrolidinone	70000	4100	

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Attn: **Mr. Terry Ashworth**

Date: Monday November 18th, 1991

RE: **B6-3**
Project # 0000-00-00-0000
Lab ID: **9110G458-002 DL**
Sample Date: 10/25/91
Date Received: 10/29/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
N,N-Dimethylacetamide	1800000	410000	

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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Monday November 18th, 1991

RE: **MW-4/6**
Project # 0000-00-00-0000
Lab ID: **9110G458-003**
Sample Date: 10/25/91
Date Received: 10/29/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	BDL	390	U
2-Picoline	BDL	390	U
N,N-Dimethylacetamide	E	390	
1-Methyl-2-pyrrolidinone	270	390	J

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Attn: **Mr. Terry Ashworth**

Date: Monday November 18th, 1991

RE: **MW-4/6**
Project # 0000-00-00-0000
Lab ID: **9110G458-003 DL**
Sample Date: 10/25/91
Date Received: 10/29/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
N,N-Dimethylacetamide	10000	2000	

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To: **Canonie Environmental**
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Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Monday November 18th, 1991

RE: **MW-4/3**
Project # 0000-00-00-0000
Lab ID: **9110G458-004**
Sample Date: 10/25/91
Date Received: 10/29/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	BDL	430	U
2-Picoline	BDL	430	U
N,N-Dimethylacetamide	E	430	
1-Methyl-2-pyrrolidinone	1600	430	

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To: **Canonie Environmental**
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Attn: **Mr. Terry Ashworth**

Date: Monday November 18th, 1991

RE: **MW-4/3**
Project # 0000-00-00-0000
Lab ID: **9110G458-004 DL**
Sample Date: 10/25/91
Date Received: 10/29/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
N,N-Dimethylacetamide	70000	8700	

	Cust ID:	B6-5		B6-5		B6-3		B6-3		MW-4/6		MW-4/6	
Sample Information	RFW#:	001		001 DL		002		002 DL		003		003 DL	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	D.F.:	5.00		250		10.0		1000		1.00		5.00	
	Units:	UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
Surrogate Recovery	Nitrobenzene-d5	39	%	D	%	60	%	D	%	61	%	D	%
	2-Fluorobiphenyl	60	%	D	%	73	%	D	%	74	%	D	%
	Terphenyl-d14	44	%	D	%	71	%	D	%	71	%	D	%
	Phenol-d5	60	%	D	%	88	%	D	%	71	%	D	%
	2-Fluorophenol	58	%	D	%	82	%	D	%	68	%	D	%
	2,4,6-Br3-phenol	53	%	D	%	79	%	D	%	66	%	D	%
Pyridine		780	J	NA		2700	J	NA		390	U	NA	
3-Picoline		13000		NA		30000		NA		390	U	NA	
N,N-Dimethylacetamide			E	590000			E	1800000			E	10000	
1-Methyl-2-pyrrolidinone		8300		NA		70000		NA		270	J	NA	

	Cust ID:	MW-4/3		MW-4/3		SBLK		SBLK BS		SBLK BSD	
Sample Information	RFW#:	004		004 DL		91GB0489-MB1		91GB0489-MB1		91GB0489-MB1	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	D.F.:	1.00		20.0		1.00		1.00		1.00	
	Units:	UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
Surrogate Recovery	Nitrobenzene-d5	61	%	D	%	87	%	90	%	87	%
	2-Fluorobiphenyl	73	%	D	%	78	%	77	%	78	%
	Terphenyl-d14	89	%	D	%	96	%	73	%	96	%
	Phenol-d5	82	%	D	%	87	%	91	%	87	%
	2-Fluorophenol	75	%	D	%	72	%	82	%	72	%
	2,4,6-Br3-phenol	62	%	D	%	68	%	77	%	68	%
Pyridine		430	U	NA		330	U	330	U	330	U
3-Picoline		7700		NA		330	U	330	U	330	U
N,N-Dimethylacetamide			E	70000		330	U	330	U	330	U
1-Methyl-2-pyrrolidinone		1600		NA		330	U	330	U	330	U

*= Outside of EPA CLP QC limits.

WESTON

Roy F. Weston, Inc. - Gulf Coast Laboratories
INORGANIC ANALYTICAL DATA PACKAGE FOR
Canonie Environmental

LABORATORY CHRONICLE
DATE RECEIVED: 11/06/91 RFW LOT # :9111G635

CLIENT ID /ANALYSIS	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
B4-6						
% SOLIDS	001	S	91GTS430	11/04/91	11/12/91	11/12/91
B4-7						
% SOLIDS	002	S	91GTS430	11/04/91	11/12/91	11/12/91
B4-8						
% SOLIDS	003	S	91GTS430	11/04/91	11/12/91	11/12/91
B4-9						
SOLIDS	004	S	91GTS430	11/04/91	11/12/91	11/12/91
B4-10						
% SOLIDS	005	S	91GTS430	11/04/91	11/12/91	11/12/91
LAB QC:						
% SOLIDS	MB1	W	91GTS430	N/A	11/12/91	11/12/91

SIGNATURE Diane L. Harper DATE 11/15/91

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Friday November 15th, 1991

RE: **B4-6**
Project # 0000-00-00-0000
Lab ID: **9111G635-001**
Sample Date: 11/04/91
Date Received: 11/06/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	81.2	%	0.10

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Friday November 15th, 1991

RE: **B4-7**
Project # 0000-00-00-0000
Lab ID: **9111G635-002**
Sample Date: 11/04/91
Date Received: 11/06/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	84.2	%	0.10

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Friday November 15th, 1991

RE: **B4-8**
Project # 0000-00-00-0000
Lab ID: **9111G635-003**
Sample Date: 11/04/91
Date Received: 11/06/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	83.4	%	0.10

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2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Friday November 15th, 1991

RE: **B4-9**
Project # 0000-00-00-0000
Lab ID: **9111G635-004**
Sample Date: 11/04/91
Date Received: 11/06/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	82.3	%	0.10

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Friday November 15th, 1991

RE: **B4-10**
Project # 0000-00-00-0000
Lab ID: **9111G635-005**
Sample Date: 11/04/91
Date Received: 11/06/91

Inorganic Client Data Report

Parameters	Result	Units	Reporting Limit
% Solids	83.1	%	0.10

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Friday November 15th, 1991

Project # 0000-00-00-0000
Lab Batch: **9111G635**

Inorganic Method Blank Data Report

Sample	Lab ID	Parameter	Result		Units	Reporting Limit
Blank 1	91GTS430-MB1	% Solids	0.10	u	%	0.10

WESTON

Roy F. Weston, Inc. - Gulf Coast Laboratories
VOA ANALYTICAL DATA PACKAGE FOR
Canonie Environmental

LABORATORY CHRONICLE
DATE RECEIVED: 11/06/91 RFW LOT # :9111G635

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
B4-6	001	S	91GVC354	11/04/91	N/A	11/13/91
B4-7	002	S	91GVC354	11/04/91	N/A	11/13/91
B4-8	003	S	91GVC354	11/04/91	N/A	11/13/91
B4-9	004	S	91GVC354	11/04/91	N/A	11/13/91
B4-10	005	S	91GVC354	11/04/91	N/A	11/13/91
LAB QC:						
VBLK	MB1	S	91GVC354	N/A	N/A	11/13/91
VBLK	MB1 BS	S	91GVC354	N/A	N/A	11/13/91

SIGNATURE Jeff A. Kozinski DATE 11-22-91

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Friday November 22nd, 1991

RE: **B4-6**
Project # 0000-00-00-0000
Lab ID: **9111G635-001**
Sample Date: 11/04/91
Date Received: 11/06/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	8	6	
Chloromethane	BDL	12	U
Trichlorotrifluoroethane	BDL	12	U
1,1,1-Trichloroethane	BDL	6	U
Trichloroethene	BDL	6	U
Tetrahydrofuran	10	6	
Tetrachloroethene	BDL	6	U
Acetone	28	12	B

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Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Friday November 22nd, 1991

RE: **B4-7**
Project # 0000-00-00-0000
Lab ID: **91116635-002**
Sample Date: 11/04/91
Date Received: 11/06/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	BDL	6	U
Chloromethane	BDL	12	U
Trichlorotrifluoroethane	BDL	12	U
1,1,1-Trichloroethane	BDL	6	U
Trichloroethene	BDL	6	U
Tetrahydrofuran	2	6	J
Tetrachloroethene	BDL	6	U
Acetone	13	12	B

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Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Friday November 22nd, 1991

RE: **B4-8**
Project # 0000-00-00-0000
Lab ID: **9111G635-003**
Sample Date: 11/04/91
Date Received: 11/06/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	12	6	
Chloromethane	BDL	12	U
Trichlorotrifluoroethane	BDL	12	U
1,1,1-Trichloroethane	3	6	J
Trichloroethene	9	6	
Tetrahydrofuran	BDL	6	U
Tetrachloroethene	BDL	6	U
Acetone	19	12	B

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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Friday November 22nd, 1991

RE: **B4-9**
Project # 0000-00-00-0000
Lab ID: **9111G635-004**
Sample Date: 11/04/91
Date Received: 11/06/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	5	6	J
Chloromethane	BDL	12	U
Trichlorotrifluoroethane	BDL	12	U
1,1,1-Trichloroethane	BDL	6	U
Trichloroethene	BDL	6	U
Tetrahydrofuran	4	6	J
Tetrachloroethene	BDL	6	U
Acetone	11	12	JB

WESTON-GULF COAST LABORATORIES, INC.
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Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Friday November 22nd, 1991

RE: **B4-10**
Project # 0000-00-00-0000
Lab ID: **9111G635-005**
Sample Date: 11/04/91
Date Received: 11/06/91
Units: UG/KG

VOLATILES BY GC/MS, SPECIAL LIST

Volatile Compound	Result	Reporting Limit	Flag
Toluene	9	6	
Chloromethane	BDL	12	U
Trichlorotrifluoroethane	BDL	12	U
1,1,1-Trichloroethane	BDL	6	U
Trichloroethene	5	6	J
Tetrahydrofuran	4	6	J
Tetrachloroethene	BDL	6	U
Acetone	16	12	B

Roy F. Weston, Inc. - Gulf Coast Laboratories
VOLATILES BY GC/MS, SPECIAL LIST
Report Date: 11/22/91 07:23

RFW Batch Number: 9111G635 Client: Canonie Environmental Work Order: 0000-00-00-0000 Page: 1a

	Cust ID:	B4-6	B4-7	B4-8	B4-9	B4-10	VBLK
Sample Information	RFW#:	001	002	003	004	005	91GVC354-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Surrogate Recovery	Toluene-d8	107 %	114 %	113 %	106 %	114 %	97 %
	Bromofluorobenzene	89 %	86 %	85 %	89 %	83 %	99 %
	1,2-Dichloroethane-d4	100 %	97 %	92 %	96 %	91 %	100 %
Toluene		8	6 U	12	5 J	9	5 U
Chloromethane		12 U	12 U	12 U	12 U	12 U	10 U
Trichlorotrifluoroethane		12 U	12 U	12 U	12 U	12 U	10 U
1,1,1-Trichloroethane		6 U	6 U	3 J	6 U	6 U	5 U
Trichloroethene		6 U	6 U	9	6 U	5 J	5 U
Tetrahydrofuran		10	2 J	6 U	4 J	4 J	5 U
Tetrachloroethene		6 U	6 U	6 U	6 U	6 U	5 U
Acetone		28 B	13 B	19 B	11 JB	16 B	15

*= Outside of EPA CLP QC limits.

Cust ID: **VBLK BS**

Sample Information

RFW#: **91GVC354-MB1**
Matrix: SOIL
D.F.: 1.00
Units: ug/Kg

Surrogate Recovery	Toluene-d8	101	%
	Bromofluorobenzene	99	%
	1,2-Dichloroethane-d4	214 *	%
Toluene		91	%
Chloromethane		10	U
Trichlorotrifluoroethane		10	U
1,1,1-Trichloroethane		5	U
Trichloroethene		90	%
Tetrahydrofuran		5	U
Tetrachloroethene		5	U
Acetone		13	B

*= Outside of EPA CLP QC limits.

Roy F. Weston, Inc. - Gulf Coast Laboratories
BNA ANALYTICAL DATA PACKAGE FOR
Canonie Environmental

LABORATORY CHRONICLE
DATE RECEIVED: 11/06/91

RFW LOT # :9111G635

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
B4-6	001	S	91GB0509	11/04/91	11/14/91	11/19/91
B4-7	002	S	91GB0509	11/04/91	11/14/91	11/19/91
B4-8	003	S	91GB0509	11/04/91	11/14/91	11/19/91
B4-9	004	S	91GB0509	11/04/91	11/14/91	11/19/91
B4-10	005	S	91GB0509	11/04/91	11/14/91	11/19/91
LAB QC:						
SBLK	MB1	S	91GB0509	N/A	11/14/91	11/18/91

SIGNATURE Jeffrey A. Kazimski DATE 11-22-91

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Friday November 22nd, 1991

RE: **B4-6**
Project # 0000-00-00-0000
Lab ID: **91116635-001**
Sample Date: 11/04/91
Date Received: 11/06/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	BDL	400	U
3-Picoline	470	400	
N,N-Dimethylacetamide	BDL	400	U
1-Methyl-2-pyrrolidinone	BDL	400	U

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7502

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Friday November 22nd, 1991

RE: **B4-7**
Project # 0000-00-00-0000
Lab ID: **9111G635-002**
Sample Date: 11/04/91
Date Received: 11/06/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	BDL	390	U
3-Picoline	BDL	390	U
N,N-Dimethylacetamide	BDL	390	U
1-Methyl-2-pyrrolidinone	BDL	390	U

WESTON-GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones: (708) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Friday November 22nd, 1991

RE: **B4-8**
Project # 0000-00-00-0000
Lab ID: **91116635-003**
Sample Date: 11/04/91
Date Received: 11/06/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	BDL	400	U
3-Picoline	BDL	400	U
N,N-Dimethylacetamide	BDL	400	U
1-Methyl-2-pyrrolidinone	BDL	400	U

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ANALYTICAL REPORT

To: **Canonie Environmental**
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Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Friday November 22nd, 1991

RE: **B4-9**
Project # 0000-00-00-0000
Lab ID: **9111G635-004**
Sample Date: 11/04/91
Date Received: 11/06/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	BDL	400	U
3-Picoline	150	400	J
N,N-Dimethylacetamide	BDL	400	U
1-Methyl-2-pyrrolidinone	BDL	400	U

WESTON-GULF COAST LABORATORIES, INC.
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ANALYTICAL REPORT

To: **Canonie Environmental**
800 Canonie Drive
Porter Drive
Porter, IN 46304

Attn: **Mr. Terry Ashworth**

Date: Friday November 22nd, 1991

RE: **B4-10**
Project # 0000-00-00-0000
Lab ID: **9111G635-005**
Sample Date: 11/04/91
Date Received: 11/06/91
Units: UG/KG

SEMIVOLATILES BY GC/MS, SPECIAL LIST

Semivolatile Compound	Result	Reporting Limit	Flag
Pyridine	BDL	400	U
3-Picoline	BDL	400	U
N,N-Dimethylacetamide	BDL	400	U
1-Methyl-2-pyrrolidinone	BDL	400	U

	Cust ID:	B4-6		B4-7		B4-8		B4-9		B4-10		SBLK	
Sample Information	RFW#:	001		002		003		004		005		91GB0509-MB1	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	D.F.:	1.00		1.00		1.00		1.00		1.00		1.00	
	Units:	UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
Surrogate Recovery	Nitrobenzene-d5	73	%	70	%	47	%	71	%	66	%	48	%
	2-Fluorobiphenyl	81	%	64	%	67	%	82	%	84	%	53	%
	Terphenyl-d14	98	%	88	%	96	%	103	%	106	%	55	%
	Phenol-d5	88	%	76	%	64	%	85	%	82	%	47	%
	2-Fluorophenol	81	%	72	%	58	%	77	%	73	%	44	%
	2,4,6-Br3-phenol	70	%	46	%	43	%	60	%	50	%	41	%
Pyridine		400	U	390	U	400	U	400	U	400	U	330	U
3-Picoline		470		390	U	400	U	150	J	400	U	330	U
N,N-Dimethylacetamide		400	U	390	U	400	U	400	U	400	U	330	U
1-Methyl-2-pyrrolidinone		400	U	390	U	400	U	400	U	400	U	330	U

*= Outside of EPA CLP QC limits.